#### PERSONAL INFORMATION

Family name, First name: Fossum, Jon Otto Date of birth: *26.12.1953;* Sex: *Male*; Nationality: *Norwegian* URL for personal web site: https://softcomlab.com/people



Languages: Fluent in Norwegian, English, French, Portuguese, some German...

#### EDUCATION

- 1983 PhD: Disputation date: September 1983. Physics, NTH (Norwegian University of Science and Technology (NTNU))/Norway
- 1978 MSc: Physics, NTH (Norwegian University of Science and Technology (NTNU))/Norway

#### CURRENT AND PREVIOUS POSITIONS

- Since 2003 Full Professor, Natural Science Fac./Physics Dept., Norwegian University of Science and Technology (NTNU)/Norway
- 2000-2003 Associate Professor, Natural Science Fac./Physics Dept., Norwegian University of Science and Technology (NTNU)/Norway
- 1997-1999 Research Scientist, Natural Science Fac./Physics Dept., Norwegian University of Science and Technology (NTNU)/Norway
- 1989-1990 Research Scientist, Physics Dept., Risø National Laboratory/Denmark
- 1987-1989 Research Scientist/Postdoc, Physics Dept., Massachusetts Institute of Technology (MIT)/USA
- 1985-1987 Postdoc, Chemistry Dept., Massachusetts Institute of Technology (MIT)/USA
- 1985-1987 Postdoc, Physics Dept., University of Sherbrooke/Quebec/Canada
- 1980-1985 **Research fellow**, Physics Dept., NTH (Norwegian University of Science and Technology (NTNU))/Norway
- 1978-1979 Researcher, Materials Technology/SINTEF/Trondheim/Norway

#### FELLOWSHIPS AND AWARDS

- 2016 Joliot Visiting Professor (1 month) at IPGG/ESPCI-ParisTech/France
- 2012-2015 **CNPq Science without Borders fellowship** (3 months/year) for working at Mechanical Eng. Dept., Pontifica Universidade Catolica do Rio de Janeiro/Brazil
- 2012 Certificate of Appreciation from ACS for reviewing work.
- 2011-2012 Invited Fellow to Centre for Advanced Studies (CAS) (1 year) at the Norwegian Academy for Science and Letters, Oslo/Norway
- 2008 **CNPq fellowship** (3 months) during sabbatical stay at Physics Dept., Universidade Federal de Pernambuco (UFPE)/Brazil
- 2004 Joliot Visiting Professor (1 month) at ESPCI-ParisTech/France
- 1985-87 NTNF Fellowship for additional support during postdoc (2 years) stay at Massachusetts Institute of Technology (MIT)/USA
- 1983 Norway-Austria Cultural Exchange Fellowship (1 month) for stay at Physics, Dept., Univ.Vienna, Austria

## **MOBILITY** (research stays abroad lasting more than three months)

- 2016-2017 Visiting scientist on sabbatical leave from NTNU: Institut Pierre Gilles de Gennes pour la microfludique (IPGG) and ESPCI-ParisTech/France
- 2012-2015 Visiting scientist: Pontifica Universidade Catolica do Rio de Janeiro (PUC-Rio)/Brazil (3 months/year)
- 2008 Visiting scientist on sabbatical leave from NTNU: Universidade Federal de Pernambuco (UFPE)/Brazil (6 months)
- 2004 **Visiting scientist** on sabbatical leave from NTNU: ESPCI-ParisTech/ France (6 months)

- 1989-1990 Postdoc: Risø National Laboratory/Denmark
- 1985-1989 Postdoc: Massachusetts Institute of Technology (MIT)/USA, including Brookhaven National Lab/USA
- 1984-1985 **Postdoc**: University of Sherbrooke/Quebec/Canada

#### SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

- 1999-2017- Number of Postdocs: 11 / PhD: 16 / Master Students: 51, Natural Science Fac./Physics Dept., NTNU/Norway
- 2012-2015 Number of **Postdocs: 1,** Mechanical Eng. Dept., Pontifica Universidade Catolica do Rio de Janeiro/Brazil
- 2012-2018 Number of PhD: 1/Master Students: 1, IMRE/Univ. Havana/Cuba
- 2011-2015 Number of PhD: 2/Master Students: 3, Physics Inst., Univ. Brasilia (UnB)/Brazil
- 2010-2015 Number of PhD: 1, Physics Dept., Univ. Oslo/Norway

#### Detailed:

#### Supervisor for 14 PhD students graduated during past 15 years:

#### Main supervisor for the following NTNU Physics graduated PhD students:

- 1) Kanak Parmar, PhD Thesis defended 2006, Present position: Professor at University of Petroleum and Energy studies, Dehradun, Uttarakhand, India
- Davi de Miranda Fonseca, PhD Thesis defended 2008, Present position: General Manager of PROMEC (Proteomics and Metabolomics Core Facility), Department of Cancer Research and Molecular Medicine, NTNU, Trondheim, Norway
- 3) Zbigniew Rozynek, PhD Thesis defended 2011, Present position: Researcher at Institute for Energy Technology (IFE), Kjeller, Norway
- 4) Henrik Hemmen, PhD Thesis defended 2012, Present position: Researcher, Oslo, Norway
- 5) Elisabeth Lindbo Hansen, PhD Thesis defended 2013, Present position: Researcher at the Norwegian Radiation Protection Authority, Oslo, Norway
- 6) Leander Michels, PhD Thesis defended 2015, Present position: Researcher at ELKEM, Kristiansand, Norway
- 7) Alexander Mikkelsen, PhD Thesis defended May 2016, Present position: Researcher at Norwegian Defense Research Establishment (FFI)
- 8) Everton Carvalho dos Santos, PhD Thesis defended October 2017, Present position: Professor at Universidade Estadual Paulista (UNESP), Araraquara, Brazil
- 9) Paulo Henrique Michels Brito, PhD Thesis defended October 2021, Present position: Researcher at ELKEM, Kristiansand, Norway

#### Co-supervisor for 3 PhD students graduated outside NTNU, and 2 at NTNU:

- 10) Rene Castberg: PhD Thesis defended June 2014 at University of Oslo (UiO), co-supervised with Prof. K.J. Måløy, UiO. Present position: Senior Researcher at DNV GL, Oslo, Norway.
- 11) Giovanni Grassi (exchanged to NTNU from UnB, on Brazilian Science without Borders grant, 12 months 2014): PhD Thesis defended November 2015 at University of Brasilia (UnB), Brazil, co-supervised with Prof. Geraldo J. da Silva, UnB. Present position: Professor employed at Instituto de Fisica, Universidade de Brasilia, Fundação Universidade Aberta do Distrito Federal FUNAB, Brazil.
- 12) Mario Altoe, (exchanged to NTNU from UnB, on Brazilian Science without Borders grant, 12 months 2014-15): PhD Thesis defended November 2015 at University of Brasilia (UnB), Brazil, co-supervised with Prof. Geraldo J. da Silva, UnB. Present position: Professor employed Universidade Federal do Espirito Santo, Alegre, ES Brazil.
- 13) Kristoffer W.B. Hunvik, PhD Thesis defended at NTNU September 2020, co-supervised with Prof. Steinar Raaen, NTNU. Present position: Researcher at Norwegian Defence Research Establishment (FFI)
- 14) Etien Martinez Roman, PhD Thesis defended at NTNU May 2022, main supervisor Prof. Paul Dommersnes NTNU. Present position: Postdoc. In Dept. of Energy and Process Engineering, NTNU

## Main supervisor for 50 NTNU MSc students of physics graduated since 1999:

- 2023 (2): Sunniva Omdal, Torstein Nordvik.
- 2020 (2): Paul Røren Monceyron, Kristian Huseby Olsen.
- 2019 (3): Konstanse Selejlid, Vegard Josvanger, Asbjørn Torsvig Kruger.
- 2018 (1): Marie Hansteen (thesis work with DSM Materials Science Center, The Netherlands).
- 2015 (2): Tommy F. Kristiansen, Torstein Eidsnes Penne (thesis work with SINTEF Energy).
- 2014 (3): Humaira Idris, Arne Halvor Thingstad Pedersen, Svein Henrik Skjellanger.
- 2013 (3): Ane Kamilla Hovdan, Emilie Lund Johnsrud (on exchange at PUC Rio de Janeiro Brazil for 7 months 2013), Janine Ravnanger Seth (on exchange at PUC Rio de Janeiro Brazil for 7 months 2013).
- 2012 (5): Øystein Anmarksrud, Kristian Hox, Knut Kjerstad, Alexander Mikkelsen (on exchange at PUC Rio de Janeiro Brazil for 6 months 2011), Karin Rustenberg.
- 2011 (3): Beate Krefting Capellen, Moshen Dahesh, Erlend G. Rolseth.
- 2010 (3): Eirik Voje Blindheim, Kjetil Hersvig, Mats Sigstad.
- 2008 (6): Bård Martin Kjelling, Elisabeth Lindbo Hansen, Knut Magnus (incl. 1 month on exchange at UFPE, Recife, Brazil), Christer Honore Ersland, Henrik Hemmen (incl. 6 months on exchange at UFPE, Recife, Brazil), Nils Ivar Ringdal.
- 2007 (9): Ariel Fischer, Hege S. Bjørnsen, Jorunn Hølto, Christian A. Nielsen, Helene Rødal, Børge Schjelderupsen, Svein Å. Slungård, Lars Ramstad Alme (incl. 1 month on exchange at UFPE, Recife, Brazil), Yunus Naqvi.
- 2005 (1): Steinar Thorshaug.
- 2003 (1): Herbert Gustav Yankson.
- 2002 (3): Vegard Bergaplass, Robin Kumar Sanga, Hans Bakken.
- 2001 (2): Tommy Nakken Aalerud, Magnus W. Haakestad.
- 2000 (1): Erlend Gudding.
- 1999 (2): Simen Berg Lutnæs, Frøydis Romunseth

## Main supervisor 5 NTNU PhD candidates at present:

- 2018-24: Osvaldo Trigueiro Neto NTNU Physics
- 2021-25: Yue Yu NTNU Physics
- 2019-24: Konstanse Kvalem Selejlid NTNU Physics
- 2022-25: Bruno Telli Ceccato NTNU Physics

2022-25: Namrah Azmi NTNU Physics, workplace Stayfit Nutrisupplies, Dar es Salaam. Tanzania

## Cosupervisor for 4 NTNU PhD students at present:

2022-25: Alexander Sexton, NTNU Physics

2022-25: Rini PR NTNU Physics, workplace IFE, Kjeller, Norway

2022-25: Negar Azis NTNU Physics

2022-25: Hanna Demchenko NTNU Physics

## Recent Opponent at PhD defenses and other panels/juries:

- Opponent for PhD defense of Marika Gugole, Chalmers University of Technology, Sweden, Sept. 2022
- In jury for PhD defense of Georgios Birmpilis, Chalmers University of Technology, Sweden, Sept. 2020
- Opponent for PhD defense of Axel Thuresson, Lund Univ., Sweden, June 2017
- Opponent for PhD defense of P. Daniel Svensson, Lund Univ., Sweden, March 2015
- Opponent for PhD defense of Haijiang Zhang, Chalmers University of Technology, Sweden, June 2013
- In jury for PhD defense of Baudouin Saintyves, CEA-Saclay & ESPCI-ParisTech February 2013
- Member of other evaluation panels in several countries: France, Sweden, Austria, Portugal

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# Main supervisor for 12 postdocs/researchers employed in the Soft and Complex Matter Lab at NTNU since 2000:

- 1) Andrew Akanno, Post.doc Physics Department NTNU 2022-
- 2) Barbara Pacakova, Researcher Physics Department NTNU 2017-
- 3) Paulo Henrique Michels Brito, Post.doc Physics Department NTNU 2021-23
- 4) Azarmidokht Gholamipour-Shirazi, Fluid Dynamics and Porous Flow, PUC-Rio de Janeiro, Brazil 2012-16, supervised together with Prof. Marci oCarvalho. PUC-Rio.
- 5) Zbigniew Rozynek, Post.doc Physics Department NTNU 2011-13. Present position at IFE, Kjeller, Norway.
- 6) Davi de Miranda Fonseca, Postdoctoral Fellow Physics Department NTNU 2010-2011. Present position at Department of Cancer Research and Molecular Medicine, NTNU.
- Bao-Xiang Wang, Post.doc NTNU Physics Department 2007-2010. Present position at College of Materials Science and Engineering, Qingdao University of Science and Technology, Qingdao 266042, China.
- 8) Zhou Min, Post.doc NTNU Physics Department 2007-2008. Present position: Instructor, The university of Texas, MD Anderson Cancer Center, Houston, TX, USA
- 9) Ahmed Gmira, Post.doc NTNU Physics Department 2003-2007. Present position: Researcher at Schlumberger Research Center in Dhahran, Saudi Arabia
- 10) Yves Meheust, Post.doc NTNU Physics Department 2002-2006. Present position: Assistant Professor, Université Rennes 1, France.
- 11) Renaud Toussaint, Post.doc NTNU Physics Department 2002-2003. Present position: Chargé de Recherches, CNRS, Institute of Globe Physics, University Louis Pasteur, Strasbourg, France.
- 12) Geraldo Jose da Silva, Post.doc NTNU Physics Department 2000-2002. Present position: Professor, University of Brasilia, Brazil

# **TEACHING ACTIVITIES**

Since 1999: Professor – Physics, Natural Science Fac./Physics Dept., NTNU/Norway

## Recent development of courses and educational activities:

- Since 2000: Development and execution of MSc spezialization course/PhD course FY8920: "Light, Neutron and X-Ray Scattering". 7.5 ECTS.
- Since 2010: Development of MSc/PhD Course TFY4203/FY8203 Soft Matter Physics (2014 and 2016 taught jointly with 6 Universities in Brasil (PUC-Rio, UnB, USP, UFABC and UFSCar and UFPE), via 2 grants from the Norwegian Centre for International Cooperation in Education (SIU) and 1 ISP grant from the Research Council of Norway Petromaks2 program). 7.5 ECTS.
- Since 2013: Development and execution of Experts in Teams (EiT) MSc course TFY4852: "Soft Technologies". 7.5 ECTS
- 2017-20: Development and execution MSc/PhD course TFY4852/FY8910: "Non-linear Dynamics". 7.5 ECTS
- 2023: Organizer of the *Geilo PhD School 2023*: *The Physics of Evolving Matter continued*: *Communication, Connectivity and Growth*, March 13-23, 2023, at Bardøla Høyfjellshotel, Geilo, Norway. 4.5 ECTS
- 2022: Organizer of the *Geilo PhD School 2022: The Physics of Evolving Matter: Memory, Learning and Evolution*, March 21-31, 2022, at Bardøla Høyfjellshotel, Geilo, Norway. 4.5 ECTS
- 2019: Organizer of the *Geilo PhD School 2019*: *Evolving Soft Matter: Shape, Dynamics and Functionality*, March 11-21, 2019, at Bardøla Høyfjellshotel, Geilo, Norway. 4.5 ECTS
- 2017: Organizer of the *Geilo PhD School* 2017: *Physics Inspired by Living Matter*, March 20-30, 2017 at Bardøla Høyfjellshotel, Geilo, Norway. 4.5 ECTS.

• 2015: Organizer of the *Geilo PhD School* 2015: *Cooperative particles: Patchy colloids, active matter and nanofluids,* March 16-26, 2015, at Bardøla Høyfjellshotel, Geilo, Norway. 4.5 ECTS. Several international researchers, professors and students participated in the Geilo School, among them about 20 from Brazil.

# **ORGANISATION OF SCIENTIFIC MEETINGS**

- 1. Organizer of *Workshop on mesostructures and microfluidics*, October 26-27, 2023, at University of Campinas UNICAMP, Campinas SP, Brazil.
- 2. Main organizer of 8th International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, September 15-16, 2023
- 3. Organizer of *Topical Seminar on Materials Science of Natural Materials; How nano-scale structures determine human-scale applications,* July 20, 2023, at Nelson Mandela African Institution for Science and Technology (NM-AIST), Arusha, Tanzania.
- 4. Organizer of the *Geilo PhD School 2023*: *The Physics of Evolving Matter continued*: *Communication, Connectivity and Growth*, March 13-23, 2023, at Bardøla Høyfjellshotel, Geilo, Norway.
- 5. Main organizer of the *Soft Matter Days 2023 NTNU*, Trondheim, Norway, January 17-20, 2023
- 6. Organizer of the 19<sup>th</sup> Nordic Workshop on Scattering from Soft Matter, NTNU, Trondheim, Norway, January 17-18, 2023
- 7. Main organizer of 8th International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 7-8, 2022
- 8. Organizer of *Geilo PhD School 2022: The Physics of Evolving Matter: Memory, Learning and Evolution,* March 21-31, 2022, at Bardøla Høyfjellshotel, Geilo, Norway.
- 9. Main organizer of 7<sup>th</sup> International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, November 12-13, 2021
- 10. Main organizer of 6<sup>th</sup> International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
- 11. In Organization Committee of "The Geilo School 2019: *Evolving Soft Matter: Shape, Dynamics and Functionality*", March 11-21, 2019, at Bardøla Høyfjellshotel, Geilo, Norway
- 12. Main organizer of 5<sup>th</sup> International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 21-22, 2018
- 13. Main organizer of Soft Matter Days, NTNU, Trondheim, Norway, April 24-27, 2018
- 14. Main organizer of 4<sup>th</sup> International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 29-30, 2017
- 15. Convener of session NT-09 Selforganization from clay particles: From nano to macro, in the 16th International Clay Conference Clays, From the Oceans to Space Granada 17-21 July 2017
- 16. Convener of session NT-14 *CO2 or methane capture by clays,* in the 16th International Clay Conference Clays, From the Oceans to Space Granada 17-21 July 2017
- 17. Co-convener of session NT-11 Material's challenges for the clay scientist, in the 16th International Clay Conference Clays, From the Oceans to Space Granada 17-21 July 2017
- 18. In Organization Committee of *"The Geilo School 2017: Physics Inspired by Living Matter"*, March 20-30, 2017 at Bardøla Høyfjellshotel, Geilo, Norway
- 19. Chair of Session on Nanotechnology an IOR/EOR in the value chain, in the 4th November Conference RD&I Collaboration between Norway and Brazil BN21, organized by Innovation Norway, at CBPF Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro October 31 November 1, 2016
- 20. Main organizer of 3<sup>rd</sup> International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2016
- 21. Chairperson at ECIS 2016, the 30th Conference of the European Colloid and Interface Society, La Sapienza, Rome, Italy, September 4-9, 2016
- 22. Chairperson at 15<sup>th</sup> International Conference on Electrorheological Fluids and Magnetorheological Suspensions (ERMR2016), Incheon, S-Korea July 4-8, 2016
- 23. Main organizer of 4<sup>th</sup> International Workshop on Complex Physical Phenomena in Materials, Hotel Armacao, Porto de Galinhas PE, Brazil, February 22-25, 2016 (About 60 participants)

- 24. Main organizer of Norwegian-Brazilian Workshop on Soft and Complex Matter: From Basic Materials Phenomena to Technology, Pontificia Universidade Católica do Rio de Janeiro, Brazil, November 25, 2015 (Co-organized with Prof. Marcio Carvalho, PUC Rio de Janeiro Brazil), independent associated event to the 3<sup>rd</sup> November Conference RD&I Collaboration between Norway and Brazil - BN21, organized by Innovation Norway.
- 25. Organizer of 2<sup>nd</sup> International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 15-16, 2015
- 26. In scientific/organizing committee of *International Conference: Materials Science in the Age of Sustainability*, Havana, Cuba, June 29 July 1, 2015
- 27. Main organizer of MarchCOMeeting'15-JunEdition: International workshop on Complex matter physics: Materials, dynamics and patterns, Havana, Cuba, June 24-26, 2015 (Co-organized with Prof. Ernesto Altshuler, Univ. Havana, Cuba)
- 28. In organizing committee of *Nordic Physics Days*, and convener of *Session on Soft and Complex Matter* at NTNU, Trondheim Norway, June 9-12, 2015
- 29. In Organization Committee of *The Geilo School 2015: Cooperative particles: Patchy colloids, active matter and nanofluids*" (http://www.ife.no/en/ife/departments/physics/the-geilo-school-2015), March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 30. Main organizer of Nordforsk *Nordic Workshop on Soft Matter Physics*, at the Norwegian Academy of Science and Letters, Oslo, Norway, September 29-30, 2014
- 31. Main organizer of 3<sup>rd</sup> International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22, 2014 (About 60 participants) (Co-organized with Prof. Marcio Carvalho, PUC Rio de Janeiro Brazil)
- 32. Main organizer of International Mini-Workshop on Multi-Component Soft and Complex Fluids, at International Center for Condensed Matter Physics (ICCMP), University of Brasilia (UnB), Brasilia-DF, Brazil, July 15-16, 2013 (Co-organized with Prof. Geraldo Jose da Silva, UnB, Brasilia, Brazil)
- 33. Main organizer of International Mini-Workshop on Complex Drops and Emulsions at Department of Mechanical Engineering at Pontifícia Universidade Católica do Rio de Janeiro, Brazil, July 12, 2013 (Coorganized with Prof. Marcio Carvalho, PUC-Rio, Brazil)
- 34. Convener of Symposium: *Self-organization from Clay Particles: From Nano to Macro* as part of the 15th International Clay Conference, Rio de Janeiro, Brazil, July 7-11, 2013.
- 35. In scientific committee of 15th International Clay Conference, Rio de Janeiro, Brazil, July 7-11, 2013.
- 36. Main organizer of Nordforsk International Workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, May 21-24, 2013. (Co-organized with Prof. Aldo Jesorka, Chalmers Univ. Gothenborg, Sweden)
- 37. Main organizer of *Mini-Workshop on Complex Flows and Turbulence*, Departamento de Fisica, UFPE Recife, PE, Brazil, December 7, 2012 (Co-organized with Prof. Giovani Vasconcelos, UFPE Recife Brazil)
- Main organizer of International Workshop on Soft Matter Physics and Complex Flows, Svolvær. Lofoten, Norway, May 22 – 25 2012 (About 60 participants from 10 different countries) (Co-organized with Prof. E. Bouchaud. ESPCI-Paris, France)
- 39. In scientific committee of *International Conference: New materials in the Age of Convergence*, Havana, Cuba, March 12-16, 2012
- 40. Main organizer of *MarchCOMeeting'12: International workshop on Complex matter physics: Materials, dynamics and patterns*, Havana, Cuba, March 5-8 2012 (About 80 participants from 10 different countries) (Coorganized with Prof. Ernesto Altshuler, Univ. Havana, Cuba)
- 41. Main organizer of International Mini-Workshop on Complex Flows, International Center for Condensed matter Physics (ICCMP), Universidade de Brasilia (UnB), Brasilia, Brazil, February 6-7 2012 (co-organized with Prof. Geraldo Jose da Silva, ICCMP and UnB, Brasilia, Brazil)
- 42. Main organizer of 2nd International Workshop on Complex Physical Phenomena in Materials, Hotel Armacao, Porto de Galinhas PE, Brazil, January 31- February 3 2012 (About 60 participants from 8 different countries) (Co-organized with Prof. Giovani Vasconcelos, UFPE Recife Brazil)
- 43. In scientific committee of International Workshop on Complex Phenomena in Superconductors and Magnetic Systems, Øystese, Norway Aug.29–Sept. 2, 2011

- 44. In organizing committee of 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network), Århus, Denmark, June 28th July 1st, 2011
- 45. Main organizer of 1st International Workshop on Complex Physical Phenomena in Materials, GoldenTulip Recife Palace Hotel, Boa Viagem, Recife PE, Brazil, December 14-17 2010 (About 40 participants from 6 different countries) (Coorganized with Prof. Mario Engelsberg, UFPE Recife Brazil)
- 46. Main organizer of *International Workshop on CO2 and Fluids in Nanoscience*, International Center for Condensed matter Physics (ICCMP), Universidade de Brasilia (UnB), Brasilia, Brazil, December 7-10 2010 (About 40 participants from 8 different countries) (Co-organized with Prof. Geraldo Jose da Silva, UnB, Brasilia, Brazil)
- 47. *Mini-Workshop on Complex Matter Physics*, NTNU in Trondheim, Norway, September 20&21 2010 (Coorganized with E. Bouchaud CEA-SACLAY Paris)
- 48. In organizing committee of *Bi-annual meeting of the Norwegian Physical Society*, Røros, Norway, August 12-14, 2009
- 49. Convener of Session NM8: Self-assembly from Clay Particles: From Nano to Macro at 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009
- 50. In organizing committee of the 27th IUGG (International Union of Geodesy and Geophysics) International Conference on Mathematical Geophysics, June 15-20, 2008 in Longyearbyen on Spitsbergen
- 51. Main organizer of *5th Nordic Workshop on Scattering from Soft Matter* at NTNU in Trondheim, Norway, February 6&7 2008 (about 50 participants from about 10 different countries)
- 52. In organizing committee of *The Complex Conference 2007* (Satellite meeting of the NANOMAT conference 2007), June 8, 2007 in Bergen, Norway
- 53. Main organizer of *Bi-Annual meeting of the Condensed Matter Physics and Atomic Physics Division of the Norwegian Physical Society*, Wadahl, Norway, September 13-15, 2006 (about 70 participants from about 10 different countries)
- 54. Main organizer of *Bi-Annual meeting of the Condensed Matter Physics and Atomic Physics Division of the Norwegian Physical Society*, Wadahl, Norway, September 16-18, 2004 (about 70 participants from about 10 different countries)

# INSTITUTIONAL RESPONSIBILITIES

2000-2017- Member of various Committees at Natural Science Faculty/Phys. Dept., NTNU/Norway

# PROJECT MANAGEMENT EXPERIENCE

Since 2004 Manager of about 20 projects awarded from the Research Council of Norway (total funding about 7 MEUR). Manager of 2 projects awarded from Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (total funding approx. 0,3 MEUR), 1 project awarded from Nordforsk (total funding approx 0.7 MEUR). 1 project from NTNU Discovery (total funding 1 MNOK).

This includes 5 recent projects:

- 2022.2023 "ClayColor: Eco-friendly dye", NTNU Discovery oroject
- 2021-2026 "Clay nanolayers for encapsulation of drops or nanoparticles", Research Council of Norway -Researcher Project for Scientific Renewal. External academic partners at Univ. Oslo Norway, Univ. Bauyreuth Germany, ESPCI-ParisTech France, Universidade de Sao Paulo - USP Brazil, Chalmers Univ. Techn., Gotheburg Sweden
- 2021-2025 "Pickering emulsions for food applications", Horizon2020 MSCA-ITN-ETN, coordinated from DTU Denmark, J.O. Fossum is one of the WP leaders. 22 beneficiaries/partners worldwide.
- 2018-2024 "Nanofluids for IOR and Tracer Technology", Research Council of Norway, Petromaks2; External academic partners at NORCE-Stavanger, Norway, IFE - Kjeller Norway, ESPCI-ParisTech/Pierre Gilles de Gennes Institute for Microfluidics - IPPG Paris France, Univ. Rennes1 France, Pontifica Universidade Catolica do Rio de Janeiro - PUC-Rio Brazil, Universidade de Sao Paulo - USP Brazil
- 2016-2023 "Graphene-NanoClay Systems", Research Council of Norway, NANO2021; External academic partners at University of Manchester UK, and at Chalmers Univ. Techn., Gotheburg Sweden.

2017-2020 "Cellcolor: Fabricating cellulose nanocomposites for structural coloration", M-Era.Net; External academic partners at Institute for Energy Technology - Kjeller, Norway, Universidade NOVA de Lisboa and IST - Lisboa, Portugal; External private partners at Giamag Technologies, Borregaard AS, Snøhetta AS.

#### **COMMISSIONS OF TRUST**

2022 Opponent for PhD defense of Marika Gugole, Chalmers Univ. of Techn., Sweden Appointed Member COST OC-2021-1 Review Panel - RP 4, "Advancing knowledge on physics, 2021 (nano) materials and (bio) chemical processes". 2020 In jury for PhD defense of Georgios Birmpilis, Chalmers Univ. of Techn., Sweden 2020 Appointed Member COST OC-2019-1 Review Panel - RP 4, "Advancing knowledge on physics, (nano) materials and (bio) chemical processes". Appointed Member COST OC-2018-2 Review Panel, "Advancing knowledge on physics, 2019 materials and chemical processes". 2017 Opponent for PhD defence of Axel Thuresson, Lund Univ., Sweden Since 2015 Member of the Editorial Board of Scientific Reports by Nature Publishing Group 2015 Opponent for PhD defence of P. Daniel Svensson, Lund Univ., Sweden 2014-2018 Member of Management Committee for COST action MP1305: Flowing matter 2013 Appointed Member of External Expert Panel for EU COST Domain: Materials, Physics and Nanosciences (MPNS) 2013 Opponent for PhD defense of Haijiang Zhang, Chalmers Univ. of Techn., Sweden 2013 In jury for PhD defense of Baudouin Saintyves, CEA-Saclay & ESPCI-ParisTech Since 2012 Editor in Cuban Journal of Physics - Revista Cubana de Fisica Since 2012 In International Scientific Advisory Board for International Center for Condensed Matter Physics (ICCMP), Universidade de Brasilia (UnB), Brasilia, Brazil 2010-2014 Project manager of Nordforsk funded Nordic Researcher Network in Soft Matter Physics for ~100 scientists in ~10 groups (Denmark, Finland, Norway, Sweden) 2010-2014 Inter. Scientific Advisory Board Centre of Physics, Minho Univ., Braga, Portugal 2009-2013 Member of the Board of the Norwegian Physical Society 2009-2013 Chair of the Division for Condensed Matter Physics with Atomic Physics of the Norwegian Physical Society; Member of the Board of the same Division 2013 -2008 1 of 6 Members of the Physics evaluation panel of The Foundation for Science and Technology in Portugal for evaluation of all physics groups/activities in Portugal 2007-2009 1 of 6 Members of Physics panel of The Foundation for Science and Technology in Portugal for deciding Physics grants in Portugal. 2006-2010 Member of Management Committee for COST P21 action The Physics of droplets Since 2000 Regular peer-reviewing requests/assignments from APS Journals, ACS Journals, MRS Proceedings, Science, Nature Publishing Group, and others Since 2000 Project manager for about 20 projects granted by the Research Council of Norway

## **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

Since 1885 Presently, and during various periods, member of American Physical Society (APS), Materials Research Society (MRS), Norwegian Physical Society

## MAJOR COLLABORATIONS (Actively ongoing and/or with recent joint publications)

Paul Dommersnes, Soft and Complex Matter Physics, Physics/NTNU/Norway Matti Knaapila, Soft and Complex Matter Physics, Physics/NTNU/Norway Steinar Raaen, Condensed Matter Physics, Physics/NTNU/Norway Kenneth D. Knudsen, Soft and Complex Matter Physics/Neutron Scattering, Physics/IFE/NTNU/Norway Geir Helgesen, Soft Matter Physics, Physics/IFE/Univ. Oslo/Norway Arne Skjeltorp, Magnetism and Complex Fluids, Physics/IFE/Univ. Oslo/Giamag Tech./Norway Aldo Jesorka, Microfluidics, Chemical Engineering/Chalmers Univ. Tech/Sweden Heloisa Bordallo, Neutron Scattering, Physics/Univ. Copenhagen/Denmark Josef Breu, Inorganic Chemistry/Univ. Bayreuth/Germany Leide Cavalcanti, ISIS Neutron and Muon Source, UK Patrick Tabeling, Microfluidics, ESPCI-ParisTech/IPGG/France Eric Clement, ESPCI-ParisTech/France Yves Meheust, Geophysics, Geosciences/Univ. Rennes 1/France Tomas Plivelic, Synchrotron X-ray Scattering, MaxIVLab/Lund Univ./Sweden Maria Helena Godinho, Photonic Materials/Materials Science/NOVA Univ. Lisboa/Portugal Ernesto Altshuler/Aramis Rivera, Complex Systems/Materials Science, Physics/Univ. Havana/Cuba Marcio Carvalho, Fluid Dynamics and Porous Flow, Mech. Eng./PUC-Rio de Janeiro/Brazil Koiti Araki, Chemistry/Universidade de Sao Paulo – USP/Brazil Geraldo Jose da Silva, Synchrotron X-ray Scattering, Physics/Univ. Brasilia/Brazil Roosevelt D. Droppa, UFABC/Sao Paulo/Brazil Caetano Miranda, Physics/Universidade de Sao Paulo/Brazil Guy de Weireld, University of Mons, Belgium

#### **INTERNATIONAL PROJECTS:**

- Member of Management Committee for COST P21 action: *The Physics of droplets* 2006-2010
- Project leader of Nordforsk funded Nordic Researcher Network in *Soft Matter Physics* 2010-2014: NORDSOFT, includng ~100 scientists in ~10 groups/universities in Denmark, Finland, Norway, Sweden.
- Member of Management Committee for COST action MP1305: Flowing matter, May 2014 May 2018.
- Project leader of M-Era.Net project: Fabricating cellulose nanocomposites for structural coloration, July 2017 – August 2020
- WP-leader in "*Pickering emulsions for food applications*", Horizon2020 MSCA-ITN-ETN, coordinated from NTNU, M. Knaapila is coordinator and J.O. Fossum is co-coordinator and one of the WP leaders. 22 beneficiaries/partners worldwide.

## TRACK RECORD

*The total <u>number</u> of peer reviewed publications during the career:* >130; In addition: >150 invited scientific talks internationally, and >400 conference contributions (talks, posters etc). H-index 32 (May 2023)



#### **Google Scholar Citations:**

List of ten selected publications, (Parenthesis at end is the number of citations as listed in Google Citations Jan. 2023):

- 1. Active structuring of colloidal armour on liquid drops, P Dommersnes, Z Rozynek, A Mikkelsen, R Castberg, K Kjerstad, K Hersvik, JO Fossum, **Nature communications** 4, 1-8 (2013) (**136**)
- 2. *Minute synthesis of extremely stable gold nanoparticles,* M Zhou, B Wang, Z Rozynek, Z Xie, JO Fossum, X Yu, S Raaen, **Nanotechnology** 20, 505606 (2009) (**141**)
- 3. Electrorheological properties of organically modified nanolayered laponite: influence of intercalation, adsorption and wettability, B Wang, M Zhou, Z Rozynek, JO Fossum, Journal of Materials Chemistry 19, 1816 (2009) (117)
- 4. *Electrorheological suspensions of laponite in oil: rheometry studies,* KPS Parmar, Y Méheust, B Schjelderupsen, JO Fossum, Langmuir 24, 181 (2008) (109)

- 5. *Electroformation of Janus and patchy capsules,* Z Rozynek, A Mikkelsen, P Dommersnes, JO Fossum, Nature communications 5, 1 (2014) (108)
- 6. *Physical phenomena in clays,* JO Fossum, **Physica A: Statistical mechanics and its applications** 270, 270 (1999) (**95**)
- Intercalation and retention of carbon dioxide in a smectite clay promoted by interlayer cations, L Michels, JO Fossum, Z Rozynek, H Hemmen, K Rustenberg, PA Sobas, GN Kalantzopoulos, K Dahl Knudsen, M Janek, TS Plivelic, GJ da Silva, Scientific reports 5, 1 (2015) (94)
- 8. Orientational order in gravity dispersed clay colloids: A synchrotron x-ray scattering study of Na fluorohectorite suspensions, E DiMasi, JO Fossum, T Gog, C Venkataraman, **Physical review E** 64, 06170 (2001) (**85**)
- 9. Quick clay and landslides of clayey soils, A Khaldoun, P Moller, A Fall, G Wegdam, B De Leeuw, Y Méheust, Yves Méheust, JO Fossum, D Bonn, **Physical review letters** 103, 188301 (2009) (85)
- 10. *Swelling transition of a clay induced by heating*, EL Hansen, H Hemmen, D de Miranda Fonseca, C Coutant, KD Knudsen, TS Plivelic, D Bonn, JO Fossum, **Scientific reports** 2, 1-4 (2012) (**84**)

*Selected invited presentations* including peer-reviewed, internationally established conferences, international advanced schools:

Instituto de Fisica Colloquium, Universidade de Sao Paulo – USP, Brazil, December 8, 2022

<u>RCGI Colloquium Universidade de Sao Paulo – USP, Brazil</u>. June 9, 2022

<u>5th-Interpore conference of the Brazilian chapter. 5th-Interpore conference of the Brazilian chapter; Online.</u> <u>August 1-2, 2022</u>

American Physical Society - APS March Meeting, Online, March 15-19, 2021

American Physical Society - APS March Meeting, Denver CO, USA, March 2-6, 2020

<u>II Brazil-Argentine Microfluidics Congress, V Congreso de Microfluídica Argentina,</u> Córdoba Argentina, October 22-25, 2019

<u>104ª Reunión de la Asociación Física Argentina,</u> Santa Fe Argentina, 30 Sept. - 3 Oct. 2019

Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Norway, March 2019

Geilo School 2017: Physics Inspired by Living Matter, Norway, March 2017

29th MAX IV Laboratory User Meeting (UM17), Lund, Sweden, March 13-15, 2017

28th Annual MAX IV Laboratory User Meeting (UM15), Lund, Sweden, September 21-23, 2015

Material Science in the Age of Sustainability, Havana, Cuba, June 2015;

Geilo School 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, Norway, March 2015;

The Brijuni Conference, Croatia, August 2014;

Plenary lecture at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 2013;

New materials in the Age of Convergence, Havana, Cuba, March 2012;

Geilo School 2011; Cooperative Phenomena in Flows, Norway April 2011;

<u>MRS Fall Meeting, Symposium D: Materials in Transition-Insights from Synchrotron and Neutron Sources,</u> Boston, USA, November 2007;

XXVIII Encontro Nacional de Física da Matéria Condensada, Santos, SP, Brazil, May 2005;

<u>Geilo School 2005: Dynamics of Complex Interconnected Biosensor Systems: Networks and Bioprocesses</u>, Norway, April 2005

*Major contributions to the early careers of excellent researchers:* 4 Master students, 8 PhD students, and 7 supervised postdocs are pursuing academic careers. To mention a few: Former postdocs GJ da Silva is Professor at University of Brasilia, Brazil, Y. Meheust is Professor at Univ. Rennes1, France; Former PhD student Elisabeth L. Hansen works at the Norwegian Radiation Protection Agency in Oslo.

**Research expeditions:** 2-4 times per year for the past 20 years; Leader of research expeditions to international synchrotron or neutron facilities such as ESRF (France), LNLS (Brazil), MaxIVLab (Sweden), PLS (S-Korea), ANL and BNL (USA), ISIS (UK), Diamond (UK), BESSY (Germany) and others.

# Patents:

United States Patent US 2023/0347314 A1 "Using nano-functionalized clay minerals for gas separation". International (PCT) Patent Application No. PCT/EP2022/069194, "Color clay". Patent application 2114853.1 "Clay Janus Nanosheets".

# Full publication list:

# Academic and professional publications past 5 years (Recent highlights in bold):

- Classifying Tensile Loading History of Continuous Carbon Fiber Composites Using X-Ray Scattering and Machine Learning, Alexander Sexton, Marc Kanters, Hanna Demchenko, Barbara Pacáková, Jon Otto Fossum, Luigi Balzano, and Matti Knaapila, Adv. Eng. Mater. 2301415 DOI: 10.1002/adem.202301415 (2023)
- Intercalation of CO2 Selected by Type of Interlayer Cation in Dried Synthetic Hectorite, Kristoffer W. Bø Hunvik, Konstanse Kvalem Seljelid, Dirk Wallacher, Alexsandro Kirch, Leide P. Cavalcanti, Patrick Loch, Paul Monceyron Røren, Paulo Henrique Michels-Brito, Roosevelt Droppa-Jr, Kenneth Dahl Knudsen, Caetano Rodrigues Miranda, Josef Breu, and Jon Otto Fossum, Langmuir 39, 4895 (2023)
- Influence of CO2 on Nanoconfined Water in a Clay Mineral, Kristoffer W. Bø Hunvik, Rodrigo José da Silva Lima, Alexsandro Kirch, Patrick Loch, Paul Monceyron Røren, Martin Hoffmann Petersen, Svemir Rudić, Victoria García Sakai, Kenneth Dahl Knudsen, Caetano Rodrigues Miranda, Josef Breu, Jon Otto Fossum and Heloisa N. Bordallo, Journal of Physical Chemistry C 126, 17243 (2022)
- Large bandgap insulating superior clay nanosheets, Barbara Pacakova, Per Erik Vullum, Alexsandro Kirch, Josef Breu, Caetano Rodrigues Miranda & Jon Otto Fossum, Impact article, MRS Bulletin 47, December 2022. DOI: https://doi.org/10.1557/s43577-022-00349-8 (2022)
- Bright, noniridescent structural coloration from clay mineral nanosheet suspensions, Paulo H. Michels-Brito, Volodymyr Dudko, Daniel Wagner, Paul Markus, Georg Papastavrou, Leander Michels, Josef Breu, Jon Otto Fossum, Science Advances 8(4), DOI: 10.1126/sciadv.abl8147 (2022)
- CO2 Adsorption Enhanced by Tuning the Layer Charge in a Clay Mineral, Kristoffer W. Bø Hunvik, Patrick Loch, Dirk Wallacher, Alexsandro Kirch, Leide P. Cavalcanti, Martin Rieß, Matthias Daab, Vegard Josvanger, Sven Grätz, Fabiano Yokaichiya, Kenneth Dahl Knudsen, Caetano Rodrigues Miranda, Josef Breu, Jon Otto Fossum, Langmuir 37, 14491 (2021)
- Water Dynamics in Composite Aqueous Suspensions of Cellulose Nanocrystals and a Clay Mineral Studied through Magnetic Resonance Relaxometry, Anant Kumar, Carlos Cruz, João L. Figueirinhas, Pedro J. Sebastião, Ana C. Trindade, Susete N. Fernandes, Maria H. Godinho, and Jon Otto Fossum, J. Phys. Chem. B 125, 12787 (2021)
- 8. *Exfoliation of carboxymethylcellulose-intercalated layered double hydroxide in water*, Gustavo F. Perotti, Jéssica R. Bortotti, Filipe S. Limaa, Leander Michels, Everton C.dos Santos, Mário A.S. Altoé, GiovanniGrassi, Geraldo J. da Silva, Roosevelt Droppa-Jr, Jon O. Fossum, Vera R.L. Constantino, Applied Clay Science 205, 106005 (2021)
- 9. Controlled Sample Environment for Studying Solid-Gas Interactions by in situ Powder X-ray Diffraction, Paul Monceyron Røren, Kristoffer William Bø Hunvik, Vegard Josvanger, Ole Tore Buset and Jon Otto Fossum, Journal of Applied Crystallography 54, 1-5 (2021)
- Unmodified Clay Nanosheets at the Air–Water Interface, Paulo H. Michels-Brito, Antonio Malfatti-Gasperini, Lina Mayr, Ximena Puentes-Martinez, Rômulo P. Tenório, Daniel R. Wagner, Kenneth D. Knudsen, Koiti Araki, Rafael G. Oliveira, Josef Breu, Leide P. Cavalcanti, Jon Otto Fossum, Langmuir 37, 160–170 (2021)
- Experimental methods to study clay minerals and perspective applications of Fluorohectorite, P. H. Michels-Brito, L. Michels, K. W. B. Hunvik, E.C. dos Santos, B. Pacáková, L. P. Cavalcanti, K. D. Knudsen, H. N. Bordallo and J. O. Fossum, OAJ Materials and Devices 5 (2021), also published as chap No 21, p 601 in Perovskites and other framework structure crystalline materials: new trends and perspectives, DOI:10.23647/ca.md20201501
- 12. CO2 Capture by Nickel Hydroxide Interstratified in the Nanolayered Space of a Synthetic Clay Mineral, Kristoffer W. Bø Hunvik, Patrick Loch, Leide P. Cavalcanti, Konstanse Kvalem Seljelid, Paul Monceyron Røren, Svemir Rudic, Dirk Wallacher, Alexsandro Kirch, Kenneth Dahl Knudsen, Caetano Rodrigues

Miranda, Josef Breu, Heloisa N. Bordallo and Jon Otto Fossum, J. Phys. Chem. C 124, 26222–26231 (2020)

- Impact of Thermal History on Water Adsorption in a Synthetic Nanolayered Silicate with Intercalated Li+ or Na+. L. Michels, C. L. S. da Fonseca, Y. Méheust, M. A. S. Altoé, E. C. dos Santos, G. Grassi, R. Droppa Jr., K. D. Knudsen, L. P. Cavalcanti, K. W. B. Hunvik, J. O. Fossum, G. J. da Silva, and H. N. Bordallo, J. Phys. Chem. C 124, 24690–24703 (2020)
- 14. Spontaneous Formation of an Ordered Interstratification upon Ni-exchange, Patrick Loch, Kristoffer William Bø Hunvik, Florian Puchtler, Sebastian Weiß, Konstanse Kvalem Seljelid, Paul Monceyron Røren, Svemir Rudic, Steinar Raaen, Kenneth Dahl Knudsen, Heloisa N. Bordallo, Jon Otto Fossum, Josef Breu, Applied Clay Science 198, 105831 (2020)
- 15. Clay nanolayer encapsulation, evolving from origins of life to future technologies, Jon Otto Fossum, European Physical Journal Special Topics 229, 2863–2879 (2020)
- Photonic Composite Materials from Cellulose Nanorods and Clay Nanolayers, Ana C. Trindade, Miguel Carreto, Geir Helgesen, Kenneth D. Knudsen, Florian Puchtler, Josef Breu, Susete Fernandes, Maria Helena Godinho, Jon Otto Fossum, European Physical Journal Special Topics 229, 2741–2755 (2020)
- Physicochemical characterisation of fluorohectorite: Water dynamics and nanocarrier properties, Simon R. Larsen, Leander Michels, Éverton C.dos Santos, Marcella C. Berg, Will P. Gates, Laurie P. Aldridge, Tilo Seydel, Jacques Ollivier, Mark T.F. Telling, Jon Otto Fossum, Heloisa N. Bordallo, Microporous and Mesoporous Materials 306, 110512 (2020)
- Water vapor diffusive transport in a smectite clay: Cationic control of normal versus anomalous diffusion, Leander Michels, Yves Méheust, Mario A. S. Altoé, Éverton C. dos Santos, Henrik Hemmen, Roosevelt Droppa, Jr., Jon O. Fossum, and Geraldo J. da Silva, Phys. Rev. E 99, 013102 (2019)
- 19. Active structuring of colloids through field-driven self-assembly, Ville Liljeström, Chen Chen, Paul Dommersnes, Jon Otto Fossum, André H. Gröschel, Current Opinion in Colloid & Interface Science 40, 25-41 (2019)

## Earlier (before 2019) scientific publications:

- 20. A nano-silicate material with exceptional capacity for CO2 capture and storage at room temperature, L.
   P. Cavalcanti, G. N. Kalantzopoulos, J. Eckert, K. D. Knudsen & J. O. Fossum, Scientific Reports 8, 11827 (2018)
- 21. The pH influence on the intercalation of the bioactive agent ciprofloxacin in fluorohectorite, E.C. dos Santos, W.P. Gates, L. Michels, L. Juranyi, A. Mikkelsen, G.J. da Silva, J.O. Fossum, H.N. Bordallo, Applied Clay Science 166, 288 - 298 (2018)
- 22. Sample cell for studying liquid interfaces with an in situ electric field using X-ray reflectivity and application to clay particles at oil—oil interfaces, Simon R. Larsen, Marie Hansteen, Barbara Pacakova, Keld Theodor, Thomas Arnold, Adrian R. Rennie, Geir Helgesen, Kenneth D. Knudsen, Heloisa N. Bordallo, Jon Otto Fossum and Leide P. Cavalcanti, J. Synchrotron Radiaton 25, 915–917 (2018)
- 23. A simple way for targeted delivery of an antibiotic: In vitro evaluation of a nanoclaybased composite, Leslie Valdes, Irela Perez, Louis Charles de Menorval, Ernesto Altshuler, Jon Otto Fossum, Aramis Rivera, PLoS ONE 12(11): e0187879 (https://doi.org/10.1371/journal.pone.0187879) (2017)
- Ciprofloxacin intercalated in fluorohectorite clay: Identical pure drug activity and toxicity with higher adsorption and controlled release rates, E.C. dos Santos, Z. Rozynek, E.L. Hansen, R. Hartmann-Petersen, R.N. Klitgaard, A. Loebner-Olesen, L. Michels, A. Mikkelsen, T.S. Plivelic, H.N. Bordallo, J.O. Fossum, RSC Advances 7, 26537-26545 (2017)
- 25. *Mechanics of Pickering Drops Probed by Electric Field Induced Stress*, A. Mikkelsen, P. Dommersnes, Z. Rozynek, A. Gholamipour-Shirazi, M. da S. Carvalho and J. O. Fossum Materials 10, 436 (2017)
- 26. *Transient deformation dynamics of particle laden droplets in electric field*, Alexander Mikkelsen, Zbigniew Rozynek, Khobaib Khobaib, Paul Dommersnes, Jon Otto Fossum, Colloids and Surfaces A: Physicochemical and Engineering Aspects, doi: 10.1016/j.colsurfa.2017.05.010 (2017)
- Transition from glass- to gel-like states in clay at a liquid interface, A. Gholamipour-Shirazi, M. S. Carvalho, M. F. G. Huila, K. Araki, P. Dommersnes & J.O. Fossum, Scientific Reports 6: 37239 doi:10.1038/srep37239 (2016)

- 28. *Electro-hydrodynamic propulsion of counter-rotating Pickering drops*, P. Dommersnes, A. Mikkelsen and J.O. Fossum, European Physical Journal Special Topics 225 (4), 699-706 DOI: 10.1140/epjst/e2016-60090-2 (2016)
- 29. *Surface structuring of particle laden drops using electric fields*, P. Dommersnes and J.O. Fossum, European Physical Journal Special Topics 225 (4), 715-728 DOI: 10.1140/epjst/e2016-60013-9 (2016)
- Controlled microfluidic emulsification of oil in a clay nanofluid: Role of salt for Pickering stabilization, A. Gholamipour-Shirazi, M.S. Carvalho and J.O. Fossum, European Physical Journal Special Topics 225 (4), 757-756 DOI: 10.1140/epjst/e2016-60002-0 (2016)
- Incorporation of tramadol drug into Li-fluorohectorite clay: A preliminary study of a medical nanofluid, L. Valdés, D. Hernández, L. Ch. de Ménorval, I. Pérez, E. Altshuler, J.O. Fossum and A. Rivera, European Physical Journal Special Topics 225 (4), 767-771 DOI: 10.1140/epjst/e2016-60090-2 (2016)
- 32. *Electric-stress-induced Slip Lines in Jammed Particle Monolayers*, A. Mikkelsen, P. Dommersnes, J. O. Fossum, Revista Cubana De Fisica, 33 (1) 50-52 (2016)
- 33. Análise da Reflexão 001 da Níquel-Fluorohectorita por Difração de Raios X Síncrotron, de Oliveira, J. S.; Sousa, M. H.; Michels, L.; Fossum, J. O.; da Silva, G. J.; Mundim, K. C.; Ribeiro, L. Rev. Virtual Quim. 8 (2), 493-505 DOI: 10.5935/1984-6835.20160036 (2016)
- 34. Smectite as ciprofloxacin delivery system: Intercalation and temperature-controlled release properties, A. Rivera, L. Valdés, J. Jiménez, I. Pérez, A. Lam, E. Altshuler, L.C. de Ménorval, J.O. Fossum, E.L. Hansen, Z. Rozynek, Applied Clay Science 124-125, 150-156 doi: 10.1016/j.clay.2016.02.006 (2016)
- 35. Continuous water adsorption states promoted by Ni2+ confined in a synthetic smectite, M.A.S. Altoé, L. Michels, E.C. dos Santos, R. Droppa Jr, G. Grassi, L. Ribeiro, K.D. Knudsen, H.N. Bordallo, J.O. Fossum, G.J. da Silva, Applied Clay Science 123, 83-91 doi: 10.1016/j.clay.2016.01.012 (2016)
- 36. Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cation, L. Michels, J. O. Fossum, Z. Rozynek, H. Hemmen, K. Rustenberg, P. A. Sobas, G. N. Kalantzopoulos, K. D. Knudsen, M. Janek, T. S. Plivelic & G. J. da Silva, Scientific Reports 5: 8775 doi:10.1038/srep08775 (2015)
- 37. Anisotropic clay–polystyrene nanocomposites: Synthesis, characterization and mechanical properties, Henrik Mauroy, Tomás S. Plivelic, Jussi-Petteri Suuronen, Fredrik S. Hage, Jon Otto Fossum, Kenneth D. Knudsen, Applied Clay Science 108 19–27, doi: 10.1016/j.clay.2015.01.034 (2015)
- 38. *Electroformation of Janus and patchy capsules,* Zbigniew Rozynek, Alexander Mikkelsen, Paul Dommersnes & Jon Otto Fossum, **Nature Communications**, 5:3945, DOI: 10.1038/ncomms4945 (2014).
- 39. *EXAFS and XRD studies in synthetic Ni-Fluorohectorite,* Leander Michels; Luciano Ribeiro; Maria Suely Pedrosa Mundim; Marcelo Henrique Sousa; Roosevelt Droppa Jr.; Jon Otto Fossum; Geraldo José da Silva; Kleber Carlos Mundim, Appl. Clay Science 96, 60-66, DOI: 10.1016/j.clay.2014.04.031 (2014).
- 40. Polypropylene-organoclay nanocomposites under different electric field strengths, Zbigniew Rozynek; Suedina Maria de Lima Silva; Jon Otto Fossum; Geraldo José da Silva; Eduardo Novais de Azevedo; Henrik Mauroy; Tomás Plivelic, Appl. Clay Science 96, 67-72, DOI: 10.1016/j.clay.2014.03.011 (2014).
- 41. Electrohydrodynamic controlled assembly and fracturing of thin colloidal particle films confined at drop interfaces, Zbigniew Rozynek, Paul Dommersnes, Alexander Mikkelsen, Leander Michels and Jon Otto Fossum, European Physical Journal Special Topics 223, 1859–1867, DOI: 10.1140/epjst/e2014-02231-x (2014).
- Cation Exchange Dynamics Confined in a Synthetic Clay Mineral, G. Grassi, L. Michels, Z. Rozynek, M.A.S. Altoé, E.C dos Santos, C.L.S. da Fonseca, R. Droppa Jr., A. Gholamipour-Shirazi, J. O. Fossum, and G.J. da Silva, European Physical Journal Special Topics 223, 1883–1893, DOI: 10.1140/epjst/e2014-02233-8 (2014)
- Orientational order in a glass of charged platelets with a concentration gradient, E.L. Hansen, S. Jabbari-Farouji, H. Mauroy, T.S. Plivelic, D. Bonn, J. O. Fossum, Soft Matter, 9, 9999-10004, DOI: 10.1039/C3SM52103F (2013)
- 44. The Effect of Clay Surface Charge on the Emerging Properties of Polystyrene-organoclay Nanocomposites, H. Mauroy, T. Plivelic, E.L. Hansen, J.O. Fossum; G. Helgesen, K.D. Knudsen, J.Phys. Chem C, 117 (38), 19656–19663, DOI: 10.1021/jp403379h (2013)

- 45. Active structuring of colloidal armour on liquid drops, P Dommersnes, Z Rozynek, A Mikkelsen, R Castberg, K Kjerstad, K Hersvik & J O Fossum, Nature Communications 4:2066, DOI: 10.1038/ncomms3066 (2013)
- 46. *Electric field nematic alignment of fluorohectorite clay particles in oligomeric matrices,* Z Rozynek, R Castberg, J O Fossum, and A Mikkelsen, J. Mat. Res. 28, 1349-1355 (2013)
- 47. *Rheological study of dextran modified magnetite nanoparticles suspended in water,* A Józefczak, T Hornowski, Z Rozynek, A Skumiel and J O Fossum, Int. J. Thermophys. 34, 609–619 (2013)
- 48. *Electric-field-induced structuring and rheological properties of kaolinite and halloysite,* Z Rozynek, T Zacher, M Janek, M Caplovicová and J O Fossum, Appl.Clay Sci. 77-78, 1-9 (2013)
- 49. Oxygen-Controlled Phase Segregation in Poly(N-isopropylacrylamide)/Laponite Nanocomposite Hydrogels. Henrik Mauroy, Zbigniew Rozynek, Tomás S. Plivelic, Jon Otto Fossum, Geir Helgesen, and Kenneth D. Knudsen, Langmuir 29, 371-379 DOI: 10.1021/la303889s (2013)
- Swelling transition of a clay induced by heating, E. L. Hansen, H. Hemmen, D. M. Fonseca, C. Coutant, K. D. Knudsen, T. S. Plivelic, D. Bonn, J. O. Fossum, Scientific Reports 2, 618 (2012)
- 51. *Flow of Clays,* Jon Otto Fossum, European Physical Journal Special Topics 204, 41-56, doi: 10.1140/epjst/e2012-01551-1 (2012)
- 52. Guided self-assembly of nanostructured titanium oxide, Wang, Baoxiang; Rozynek, Zbigniew; Fossum Jon Otto; Knudsen, Kenneth D; Yu, Yingda, Nanotechnology 23, 075706 doi: 10.1088/0957-4484/23/7/075706 (2012)
- Guided self-assembly of nanostructured titanium oxide, Wang, Baoxiang; Rozynek, Zbigniew; Fossum Jon Otto; Knudsen, Kenneth D; Yu, Yingda, Nanotechnology 23, 279502 doi:10.1088/0957-4484/23/27/279502 (2012)
- 54. *Dipolar structuring of organically modified fluorohectorite clay particles*, Rozynek, Z., Wang, B., Fossum J.O., Knudsen, K.D., European Phys. J.I E 35, 27239502 doi: 10.1140/epje/i2012-12009-x (2012)
- 55. X-ray Studies of Carbon Dioxide Intercalation in Na-Fluorohectorite Clay at Near-Ambient Conditions, Henrik Hemmen, Erlend G. Rolseth, Davi M. Fonseca, Elisabeth L. Hansen, Jon Otto Fossum and Tomás S. Plivelic, Langmuir 28, 1678-1682 DOI: 10.1021/la204164q (2012)
- 56. *The Frederiks transition in an aqueous clay dispersion*, H. Hemmen, E. L. Hansen, N. I. Ringdal and J.O. Fossum, Cuban Journal of Physics, Revista Cubana de Fisica, vol. 29-1E, 59-61, http://www.fisica.uh.cu/biblioteca/revcubfis/ (2012)
- 57. Dipolar ordering of clay particles in various carrier fluids, Z. Rozynek, H. Mauroy, R. Ch. Castberg, K. D. Knudsen and J.O. Fossum, Cuban Journal of Physics, Revista Cubana de Fisica, vol. 29-1E, 37-41, http://www.fisica.uh.cu/biblioteca/revcubfis/ (2012)
- 58. Clay alignment in electric fields, R. Castberg, Z. Rozynek, J. O. Fossum, K. J. Måløy, P. Dommersnes and E. G. Flekkøy, Cuban Journal of Physics, Revista Cubana de Fisica, vol. 29-1E, 17-19, http://www.fisica.uh.cu/biblioteca/revcubfis/ (2012)
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# Some invited and contributed scientific talks, past 20 years:

- 1. *Clay minerals as 2D natural nanomaterials for sustainable applications*, invited lecture at Harvard University, School of Engineering and Applied Sciences, Cambridge, Massachusetts, USA, Dec. 5, 2023
- 2. *Clay minerals representative of natural nanomaterials for sustainable applications*, invited Friday Physic Colloquium, NTNU, Trondheim, Norway, November 17, 2023
- 3. *Clay minerals as 2D natural nanomaterials for sustainable applications*, invited lecture at Universidade Federal de Pernambuco- UFPE, Recife, Brazil, November 13, 2023
- 4. *Recent developments of clay science for sustainable applications*, invited lecture at ILLUM escola de ciência, Campinas, Brazil, November 1, 2023
- 5. Liquid–crystalline aqueous suspensions of clay minerals, invited lecture at CENIMAT, Departamento Ciência dos Materiais, NOVA SCHOOL OF SCIENCE AND TECHNOLOGY | FCT NOVA, Universidade NOVA de Lisboa, Campus de Caparica, Portugal, October 17, 2023
- 6. Intro to Soft and Complex Matter Lab, NTNU: Natural nanomaterials for sustainable applications, NTNU NanoLecture, Trondheim, Norway, September 12, 2023
- 7. Self-wrinkling insulating nanosheets as substrates for wrinkling of graphene, graphene oxide and other 2D materials, talk presented at Graphene Week, Gothenburg, Sweden, September 4-8, 2023
- 8. Advanced materials science based on clay minerals, talk presented at Topical Seminar on Materials Science of Natural Materials How nano-scale structures determine human-scale applications, Nelson Mandela Arican Institution of Science and Technology (NM-AIST), Arusha, Tanzania, July 20, 2023
- 9. *Pros and cons of 2D materials for structural coloration*, Invited talk at Discussions on Nano and Mesoscopic Optics, DINAMO 2023 in Svolvær, Lofoten Islands, Norway, June 11 16, 2023
- 10. *Clay mineral nanosheets suspended in water give bright and noniridescent structural colors* SICT 2023 / PLASMA TECH 2023 / TRIBOLOGY 2023 JOINT CONFERENCES Lisbon, Portugal, 26-28 April, 2023
- 11. From low- to high-tech applications of clay minerals, Instituto de Fisica Colloquium, Universidade de Sao Paulo USP, Brazil, December 8, 2022
- 12. *CO2 sorption by clay minerals, from nano-to geo-scales*. 5th-Interpore conference of the Brazilian chapter 5th-Interpore conference of the Brazilian chapter; Online. August 1-2, 2022
- 13. Some pandemic advances in the materials science of clay minerals: from CO2 induced tight crystalline swelling to structural coloration by giant nematic osmotic swelling. Colloqium Chemistry and Mechanical Engineering Pontifica Universidade Catoliqa do Rio de Janeiro, Brasil June 21, 2022
- 14. Some pandemic advances in the materials science of clay minerals: from CO2 induced tight crystalline swelling to structural coloration by giant nematic osmotic swelling. RCGI Colloquium Universidade de Sao Paulo USP. RCGI, Brazil, June 9, 2022.
- 15. Active versus driven particle-assembly in microfluidic confinement. Colloqium Chemical Engineering Unicamp Brazil, June 7, 2022
- 16. Advanced material science of clay minerals: from capture of carbon dioxide to non-iridescent structural coloration, invited lecture, session "Electrostatic Manipulation of Fluids and Soft Matter", APS March Meeting, Denver CO, USA March 15-19, 2021
- 17. Particle assembly using confined electro-hydrodynamics: Driven versus active assembly, invited lecture, session "Electrostatic Manipulation of Fluids and Soft Matter", Online. APS March Meeting, Denver CO, USA March 2-6, 2020
- 18. Informal discussion about how fictionalization on the nanoscale is deterministic for properties and behaviors on the macro-scale, and how this can be characterized by means of synchrotron x-ray scattering (SIRIUS) and neutron scattering techniques, invited talk at LMMP Group, Mechanical Engineering, Pontifica Universidade Catolica do Rio de Janeiro (PUC.Rio), October 29th, 2019
- 19. How come it is of interest to study pure and applied physics, chemistry and materials science of mud?, invited talk at Inorganic Chemistry Group, Pontifica Universidade Catolica do Rio de Janeiro (PUC.Rio), October 29th, 2019

- 20. Active versus driven particle assembly in microfluidic confinement, invited keynote lecture given at II Brazil-Argentine Microfluidics Congress, V Congreso de Microfluídica Argentina, Córdoba Argentina, Oct. 22-25, 2019
- 21. *Nature-inspired materials physics*, invited plenary lecture given at 104<sup>ª</sup> Reunión de la Asociación Física Argentina, Santa Fe Argentina, 30 September 3 October 2019
- 22. *Clay Matters*, lecture presented at "The Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality", March 11-21, 2019 at Bardøla Høyfjellshotel, Geilo, Norway
- 23. *Tuning Photonic Properties of Cellulose-Clay Nano Structure*, Ana Catarina Trindade, Susete Fernandes, Ville Liljeström, Matthias Daab, Josef Breu, Maria Helena Godinho, Jon Otto Fossum, talk presented at MRS Fall Meeting 2018, Boston, USA, Nov 26th 2018.
- 24. Electric field induced particle assembly on oil drops: Review of electrohydrodynamic and dielectrophoretic effects, invited talk given at Brazil-Argentina Microfluidics Congress, Pontifica Universidade Catolica do Rio de Janeiro (PUC-Rio), Brazil July 18 July 20, 2018
- 25. *Clay Physics*, invited talk at Institut Charles Sadron, Univ. Strasbourg, France, June 26th, 2018
- 26. *Molecular interactions with clay particles,* invited talk as part of the discipline "Special Topics in Biochemistry" (NB520) at Instituto de Biologia, Universidade Estadual de Campinas (Unicamp) on June 14th, 2018
- 27. *Clay Physics,* invited talk at LVMH Recherche (Moët Hennessy Louis Vuitton SE Recherche), St Jean de Braye France, May 22nd, 2018
- 28. Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects, invited talk at Inorganic Chemistry Group, Pontifica Universidade Catolica do Rio de Janeiro (PUC.Rio), December 20th, 2017
- 29. Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects, invited talk at Department of Chemistry, UNICAMP, Campinas, December 7th, 2017
- 30. Electric field manipulation of clay particles and structures at liquid-liquid interfaces, invited talk presented on behalf of Paul Dommersens at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session NT09: Self-Organization from Clay Particles, from Nano to Macro, Granada Spain July 21<sup>st</sup> 2017
- 31. Pickering emulsion stability connected to glass- or gel-like states in clay at drop interfaces, talk given at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session NT13: Clay Mineral Colloids for Liquid Crystals and Soft Materials, Granada Spain July 20<sup>th</sup> 2017
- 32. Synthetic smectite fluorohectorite as an inovative drug carrier: Characterization and controlled release study of ciprofloxacin, talk presented on behalf of Everton C. dos Santos at 16<sup>th</sup> International Clay Conference (16ICC): Clays from the Oceans to Space, in Session OM02: Drug Delivery Systems based on Layered materials, Granada Spain July 17<sup>th</sup> 2017
- 33. *Soft Nano Science/Technology*, invited lecture at Nelson Mandela African Institute of Science and Technology (NM-AIST), Arusha, Tanzania, July 11<sup>th</sup> 2017
- 34. *Basic physics of drops/emulsions, in relation to applications in EOR, cosmetics, foods etc,* invited lecture at University of Dar es Salaam (UDSM), Tanzania, July 6<sup>th</sup> 2017
- 35. *The physics of clay minerals: From the nanoscale to the geo-scale, and everything in between*, invited lecture at University of Dar es Salaam (UDSM), Tanzania, July 5<sup>th</sup> 2017
- 36. Nanoscience of Soft Materials, invited lecture at University of Dar es Salaam (UDSM), Tanzania, July 4<sup>th</sup> 2017
- 37. *Electrohydrodynamics*, invited talk at Department of Marine Technology, NTNU, Trondheim June 21<sup>st</sup>, 2017
- 38. Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects, invited talk at Scool of Chemical Engineering, UNICAMP, Campinas, May 4<sup>th</sup>, 2017
- 39. Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects, invited talk at IMRE, Univ. Havana, Cuba, April 13<sup>th</sup>, 2017

- 40. *Clay Physics inspired by Living Matter, and vice versa*: Invited talk at "The Geilo School" 2017: Physics Inspired by Living Matter, March 20-30, 2017 at Bardøla Høyfjellshotel, Geilo, Norway
- 41. *Physical phenomena in clays; Overview of X-ray studies and related investigations,* invited talk at 29th MAX IV Laboratory User Meeting (UM17), Lund, Sweden, March 13-15, 2017
- 42. Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis, talk given at FLOWING MATTER 2017, 23 27<sup>th</sup> January 2017, Porto, Portugal
- 43. Vapor Transport in a Porous Smectite Clay System—From Normal to Anomalous Diffusion, talk given at 2016 MRS Fall Meeting & Exhibit, Symposium ES6 : Scientific Basis for Nuclear Waste Management, Boston, Massachusetts, USA, November 27 December 2<sup>nd</sup>, 2016
- 44. Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis, invited talk given at Department of Chemistry, Cambridge University, UK, November 10, 2016
- 45. Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis, invited talk at Department of Chemistry, Univ. Paris 6, France, November 9<sup>th</sup> 2016
- 46. Intercalation and retention of CO2 in smectite clays, invited talk at Sixth Annual Niels Bohr International Academy Workshop on ESS Science (NBIA6): Structure and Dynamics in Confinement, at European Spallation Source, Lund, Sweden, 7-8 November 2016
- 47. Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis, invited talk at Institut Charles Sadron, Univ. Strasbourg, France, October 18<sup>th</sup> 2016
- 48. *Mechanics and rheology of pickering drops probed by electric field induced stress*, talk presented at ECIS 2016, the 30th Conference of the European Colloid and Interface Society, La Sapienza, Rome, Italy, September 4-9, 2016
- 49. Dynamics of electrically guided self-assembled jammed colloidal shells on leaky dielectric drop interfaces, talk presented in session BP1: Interfaces and compartments in soft matter and biophysics, Aug. 24<sup>th</sup> 2016, at 15th JMC-Condensed Matter Days of the French Physical Society JMC15, Bordeaux, France August 22-26, 2016
- Vapor transport in a porous smectite clay: From normal to anomalous diffusion, invited talk in session MM2: Transport Processes in Permeable Media, Aug. 22<sup>nd</sup> 2016, at 15th JMC-Condensed Matter Days of the French Physical Society – JMC15, Bordeaux, France August 22-26, 2016
- 51. Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis, invited talk given at Sungkyunkwan University, S-Korea, July 13<sup>th</sup> 2016
- 52. Intercalation and Retention of CO<sub>2</sub> in Smectite Clays, invited talk given at Korea Advanced Institute of Science and Technology (KAIST), Daejeon S-Korea, July 6<sup>th</sup> 2016
- 53. Electro-hydrodynamic Tank-treading and Cooperative Swimming of Armored Drops, talk given at 15th International Conference on Electrorheological Fluids and Magnetorheological Suspensions (ERMR2016), Incheon, S-Korea July 5<sup>th</sup> 2016
- 54. Mechanics and Rheology of Pickering Drops Probed by Electric Field Induced Stress, talk given at 15th International Conference on Electrorheological Fluids and Magnetorheological Suspensions (ERMR2016), Incheon, S-Korea July 5<sup>th</sup> 2016
- 55. Soft and permeable encapsulation of fluid drops, invited talk jointly with P. Dommersnes, Physics Department, IFE, Kjeller, Norway, May 27<sup>th</sup> 2016
- 56. Nanofluids for EOR: Physicochemical mechanisms, invited talk at IOR/EOR workshop, IRIS/University of Stavanger, Norway, April 25<sup>th</sup> 2016
- 57. Clay Physics, invited Gulliver Seminar, ESPCI-ParisTech, Paris, France, March 7, 2016
- 58. Intercalation and retention of CO2 in smectite clays, invited talk at Geosciences at Univ. Rennes1, France March 3<sup>rd</sup>, 2016
- 59. *Flow of clays,* invited talk given at Clay Colloids in Aqueous Systems BELBAR conference, Berlin, Germany, 3-4 February 2016
- 60. *Electromagnetic control of colloidal structures:* Invited talk given jointly with Prof. Paul Dommersnes, Department of Chemistry, Norwegian University of Science and Technology NTNU, Trondheim, Norway, Dec. 10, 2015

- 61. *Clay Physics*, invited group (Aizenberg and Manoharan groups) talk Harvard University, Cambridge Massachusetts, USA, December 7, 2015
- 62. *Mechanics and Rheology of Pickering Films*, talk given at 2015 MRS Fall Meeting & Exhibit, Symposium J: Wetting and Soft Electrokinetics, Boston, Massachusetts, USA, November 29 December 4, 2015
- 63. *Electro-Hydrodynamic Swimming*, talk given at 2015 MRS Fall Meeting & Exhibit, Symposium J: Wetting and Soft Electrokinetics, Boston, Massachusetts, USA, November 29 December 4, 2015
- 64. Intercalation and retention of CO<sub>2</sub> in clays, organizers talk given at Norwegian-Brazilian Workshop on Soft and Complex Matter: From Basic Materials Phenomena to Technology, Pontifícia Universidade Católica do Rio de Janeiro, Brazil, November 25, 2015
- 65. *Clay Science for future technologies: Some examples,* invited talk given at University of Bayreuth (Inorganic Chemistry), November 9, 2015
- 66. Some "colloidal consequences" of electrohydrodynamics, invited talk given at University of Bayreuth (Inorganic Chemistry), November 9, 2015
- 67. Intercalation and retention of CO<sub>2</sub> in smectite clays promoted by interlayer cations, invited talk given at University of Bayreuth (Inorganic Chemistry), November 9, 2015
- 68. *Clay science for future technologies: Some examples,* invited talk given at Department of Materials Technology, NTNU, Trondheim, Norway, November 6, 2015
- 69. Intercalation and Retention of CO<sub>2</sub> by a Clay controlled by Interlayer Cations: An effective(?) and cheap(?) way of capturing CO<sub>2</sub>, invited talk given at 28th Annual MAX IV Laboratory User Meeting (UM15) "Looking back..... & Forward", Lund, Sweden, September 21-23, 2015.
- 70. Intercalation and Retention of CO<sub>2</sub> by a Clay controlled by Interlayer Cations: An effective(?) and cheap(?) way of capturing CO<sub>2</sub>, invited plenary talk given at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015.
- 71. Electroformation of Janus and patchy colloidal shells as precursors for hollow structures, invited talk given at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015.
- 72. Some "colloidal consequences" of electrohydrodynamics, invited talk given at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015.
- 73. Intercalation and Retention of CO<sub>2</sub> by a Clay controlled by Interlayer Cations: An effective(?) and cheap(?) way of capturing CO<sub>2</sub>, invited talk given during "10<sup>th</sup> Seminars of Advanced Studies on Molecular Design and Bioinformatics: The Science behind CO<sub>2</sub> Capture and Conversion", Havana, Cuba, June 23<sup>rd</sup> 2015.
- 74. *Electrodriven colloidal assembly: Patchy and active systems*: Invited talk given jointly with Prof. Paul Dommersnes at Pontifica Universidade Catholica PUC, Rio de Janeiro Brazil, June 1<sup>st</sup>, 2015
- 75. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Departamento de Fisica, Universidade Federal de Pernambuco (UFPE), Recife, Brasil, May 21<sup>st</sup>, 2015
- 76. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Sungkyunkwan University, S-Korea, April 3<sup>rd</sup>, 2015
- 77. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Gwangju Institute of Science and Technology (GIST), Gwangju, S-Korea, April 1<sup>st</sup> 2015
- 78. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Inha University Incheon S-Korea, March 30, 2015
- 79. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Seoul National University (SNU), Seoul S-Korea, March 27, 2015
- 80. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Korea Advanced Institute of Science and Technology (KAIST), Daejeon S-Korea, March 25, 2015

- 81. *Electrodriven colloidal assembly: Patchy and active systems*: Invited talk given jointly with Prof. Paul Dommersnes at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 82. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, invited talk given at Niels Bohr Institute, University of Copenhagen, March 6, 2015
- 83. Intercalation and Retention of CO2 by a Clay controlled by Interlayer Cations, talk given at the Norwegian Synchrotron- and Neutron User Meeting 2015, Sola Strand Hotel, Stavanger 19-20 January 2015
- 84. Some thoughts about an effective(?) and cheap(?) way of capturing CO<sub>2</sub>, invited talk Colóquios da Pós-Graduação em Química at Departamento de Química Fundamental – UFPE, Recife, Brazil, 10 de dezembro de 2014
- 85. Intercalation and Retention of Carbon Dioxide in a Smectite Clay at Near-Ambient Conditions, talk at 2014 MRS Fall Meeting & Exhibit, Symposium FF Materials as Tools for Sustainability, Boston, Massachusetts, USA, November 30 December 5, 2014
- 86. *Self-organization and emergent phenomena in one example soft matter system: Clay*, invited talk at The Brijuni Conference: Self organizing matter and emergence, Brijuni, Croatia, 25-30 August 2014.
- 87. Some thoughts about an effective(?) and cheap(?) way of capturing CO2, invited talk at Pontifica Universidade Catholica PUC, Rio de Janeiro Brazil, August 8, 2014
- 88. Active structuring of colloidal shells on drops by electric field, talk given at Liquids 2014, 9<sup>th</sup> Luiquid matter Conference, Lisbon, Portugal, July 21-25 2014
- 89. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, (i) Physics Faculty, Univ. Barcelona, Spain, June 20, 2014
- 90. Active structuring of colloidal shells on drops by electric fields, talk given at 4th Internaional Colloids Conference: Surface Design and Engineering, Madrid, Spain, June 16, 2014
- 91. Some thoughts about an effective(?) and cheap(?) way of capturing CO2, (i) Univ. Havana, Cuba, May 23, 2014
- 92. Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells, (i) IMRE, Univ. Havana, Cuba, May 20, 2014
- 93. Structuring of colloidal shells on drops by electric fields, Chemistry Institute, University of Sao Paulo USP, Brazil, March 11, 2014
- 94. Active Structuring of Colloidal Microparticles on Liquid Drops, talk given at 2013 MRS Fall Meeting & Exhibit, December 1-6, 2013, Hynes Convention Center, Boston, MA, Symposium WW: Self-Organization and Nanoscale Pattern Formation
- 95. Active structuring of colloidal shells on drops by electric fields, in 9th Ibero-American Workshop on Complex Fluids and 2nd Italian-Brazilian Workshop on Liquid Crystals Maceio PB, Brazil, 14 18 October, 2013
- 96. Active structuring of colloidal shells on drops by electric fields, Physics Institute, University of Sao Paulo - USP, Brazil, 4 October, 2013
- 97. Active structuring of colloidal armor on liquid drops, extensions, in Bi-annual meeting of the Norwegian Physical Society; Bergen, Norway, 7-10 August 2013
- 98. *Complex Physics in Clays,* invited plenary lecture given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 99. Recent observations regarding possible mechanisms responsible for CO2- or drug molecules- vs. H2Ointercalation in smectite clay interlayers, invited talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 100. Why clays? and Recent observations regarding possible mechanisms responsible for CO2- or drug molecules- vs. H2O- intercalation in smectite clay interlayers (i) at 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013

- 101. Intercalation of CO2 or of drugs in smectite clays, and electric field induced self-organized clay structures on droplet surfaces (i) Univ. of Campinas (UNICAMP), Biochem. Dep.t, Campinas, Brazil, Dec. 17 2012
- 102. Intercalation of CO2 or of drugs in smectite clays, and electric field induced self-organized clay structures on droplet surfaces (i) Centro Nacional de Pesquisa em Energia e Materiais–CNPEM, Campinas, Brazil, Dec. 18 2012
- 103. *Droplets and emulsion flow* (i) Mini-Workshop on Complex Flows and Turbulence, 6 a 7 de dezembro de 2012, Departamento de Física, Universidade Federal de Pernambuco, Recife, PE, Brazil
- 104. Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at near-ambient Conditions, 2012 MRS Fall Meeting & Exhibit, November 25 30, 2012, Hynes Convention Center, Boston, MA, Symposium VV: Advanced Materials Exploration with Neutrons and Synchrotron X-Rays
- 105. Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at near-ambient Conditions, IV Intern. Workshop on Layered Materials. UNICAMP; Campinas, Brasil, Nov. 26-28 2012
- 106. Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at Near-Ambient Conditions (talk), MECC 2012, 6th Mid-European Clay Conference, Průhonice, Czech Republic, 4 - 9 September 2012
- 107. *Experimental Studies of Physical Phenomena in Clays: Structures, flows and fluid transport* (i), Departamento de Fisica, Universidade Federal de Sao Carlos, UFSCar SP, Brazil, April 16, 2012
- 108. *Clay Materials Physics* (i), Short course at Physics Faculty and IMRE, Univ.Havana, Cuba, March 21-22, 2012
- 109. *Clays in Materials Physics* (i), International Conference: New materials in the Age of Convergence, Havana, Cuba, March 12-16, 2012
- Carbon dioxide intercalation in Na-fluorohectorite clay at near-ambient conditions; American Physical Society March meeting, Focus Session H36: Environment: Green processes, Boston MA, USA, Feb. 27 – March 2, 2012
- 111. Use of X-ray scattering methods for studies of physical phenomena in soft materials (i), International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil Dec. 15, 2011
- 112. *Complex Physical Phenomena in Clays: Structures, flows and fluid transport* (i), I Encontro dos Usuários de Técnicas de Difração da CEM UFABC, Câmpus de Santo André, Sao Paulo, Brazil Dec. 7-8, 2011
- 113. Physical Phenomena in Clays: Structures, flows and fluid transport (i), PETROBRAS Research Center (CENPES), Oct. 17th, 2011
- 114. *Physical Phenomena in Clays: Structures, flows and fluid transport* (i), Departamento de Engenharia Civil, Pontificia Universidade Catolica do Rio de Janeiro (PUC-Rio), Oct. 11th, 2011
- 115. *CO2 storage in porous media* (i), Research Council of Norway Conference, Soria Moria Conference Center, Oslo, Norway, October 5-6, 2011
- 116. *Magnetic resonance studies of clays: Examples of what one can learn* (i), International Workshop on Complex Phenomena in Superconductors and Magnetic Systems, Øystese, Norway Aug. 29th –Sept. 2nd, 2011
- 117. *Physical Phenomena in Clays: Structures, flows and fluid transport* (i), Bio Complexity group, Niels Bohr Institute, Copenhagen, Denmark, June 27th, 2011
- 118. Activities at Lab. for Soft and Complex Matter Studies at Dept. of Physics, NTNU (i), 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network), Århus, Denmark, June 28th July 1st, 2011
- 119. *Physical Phenomena in Clays: Structures, flows and fluid transport* (i), Complex Fluids Group, Instituto de Fisica, Universidade de Sao Paulo (USP), Sao Paulo, May 30, 2011
- 120. *Complex Matters* (i) at Symposium for the 70<sup>th</sup> birthday of Arne T. Skjeltorp, Norwegain Academy of Sciences, Oslo, Norway, May 20, 2011
- 121. Flow of Clays (i), Adv. Study Inst.: Cooperative Phenomena in Flows, Geilo, Norway April 4-14, 2011
- 122. Physical Phenomena in Clays (i), AMCS group Physics Dept., Univ. of Oslo, Norway, April 1, 2011
- 123. *Experimental Studies of Physical Phenomena in Clays* (i) in Instability and Turbulence Group, DSM/IRAMIS/SPEC/ GIT, CEA-Saclay Paris, France, March 23, 2011

- 124. *Physical Phenomena in Clays* (i). Department of Mechanical Engineering, Pontificia Universidade Catolica do Rio de Janeiro (PUC-Rio), Brazil, January 4, 2011
- 125. Sorption and Migration of CO2 in Porous Media (i), CLIMIT Days 2010, Research Council of Norway Conference, Soria Moria Conference Center, Oslo, Norway, October 12-13, 2010
- 126. *Self-Organized Soft Nanostructures in Clays* (i), 150th orbit of Alexander von Humboldt, in Workshop on Complex Systems, Havana, Cuba, June 7-11, 2010
- 127. Humidity Transport in a Material of Interconnected Meso- and Nanopores: X-ray Studies of a Model Clay, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, November 30 December 4, 2009, Symposium JJ: Multiscale Dynamics in Confining Systems, Paper number JJ4.5, Dec. 1, 2009
- 128. *Complex Physical Phenomena in a Clay*, 14th International Clay Conference Castellaneta M., Italy, June 14-20, 2009, Session UM3: General topics, 850-920 Wednesday 17 June, 2009
- 129. The Electro-Rheology of Suspensions of Synthetic Smectites in Oil, 14th International Clay Conference Castellaneta M., Italy, June 14-20, 2009, Session CE4: Colloids & Rheology, 1500-1520 Tuesday 16 June 2009
- Synchrotron X-ray Scattering from Self-organized Soft Nanostructures in Clays, 16:45–17:00, April 21, 2009, in Session SSS24 on Synchrotron radiation in soil and geosciences, European Geosciences Union-EGU, General Assembly 2009, Vienna, Austria 19-24 April 2009
- 131. Experimental Studies of Selected Soft Self-organized Nanostructures 5:00pm, December 4, 2008, in Complex Fluids session at Dynamics of Soft Matter (DSM) Workshop, Boston, MA, USA, December 4-6, 2008
- 132. Nano-Scale Hydration of a Model Clay: NMR Studies, Materials Research Society 2008 MRS Fall Meeting Dec 1-5 2008, Boston, MA, USA, Symposium PP: Solid-State Chemistry of Inorganic Materials VII, Paper number PP7.10, December 3, 2008
- 133. *Examples of Self-organized Soft Nanostructures*(i), XXVI Encontro de Físicos do Norte e Nordeste (XXVI EFNNE), Mar Hotel, Recife, Brasil 5 a 7 de novembro de 2008
- 134. Nano-scale hydration of a model clay: NMR studies, VII Encontro da SBPMat (Sociedade Brasileira de Pesquisa em Materiais), Guaruja-SP, Brasil, 28 de setembro a 2° de outobro de 2008
- 135. Water vapor transport in and hydration of, a model nano-clay: X-ray studies, VII Encontro da SBPMat (Sociedade Brasileira de Pesq. em Materiais), Guaruja-SP, Brasil, 28 de setembro a 2° de outobro 2008
- 136. Synchrotron X- ray Scattering from Selected Self- organized Soft Nanostructures, 6th Int. Conf. on Synchrotron Radiation in Materials Science, (SRMS-6), Campinas, SP, Brazil, July 20-23, 2008
- 137. *Electrorheology of Clay Particles suspended in Oil*, IV Brazilian Conference on Rheology, Rio de Janeiro, Brazil July 2-4, 2008
- 138. *Self-assembly from clay nanoparticles*(i), Universidade Federal de Campina Grande (UFCG), Ciencia e Engenharia de Materiais, Campina Grande, Paraiba, Brazil December 18, 2007
- 139. A Search for Possible Universal Anomalous Transport of Water in Meso-/Nano- Porous Materials, Materials Research Society 2007 MRS Fall Meeting, Boston, MA, USA, Symposium V: Materials Science of Water Purification, Paper number V4.4, November 28, 2007
- Transitions in Selected Selfassembled Nanostructured Soft Materials (i), Materials Research Society 2007 MRS Fall Meeting, Boston, MA, USA, Symposium D: Materials in Transition--Insights from Synchrotron and Neutron Sources, Paper number D5.1, November 27, 2007
- 141. Spontaneous and Guided Selfassembly of Clay Nanoparticles, Materials Research Society 2007 MRS Fall Meeting, Boston, MA, USA, Symposioum HH: Nanophase and Nanocomposite Materials V, Paper number HH2.6, November 26, 2007
- 142. Spontaneous and Guided Selfassembly of Nanoparticles, VI Encontro da SBPMat (Sociedade Brasileira de Pesquisa em Materiais), Natal-RN, Brasil, 28 de outubro a 1° de novembro de 2007
- 143. *From nanoparticles to macroscopic complex physical phenomena,* Annual meeting of the Norwegian Physical Society, Tromsø, Norway 8-10 August, 2007
- 144. Self-assembly from clay nano-platelets, Euroclay2007 Aveiro, Portugal, July 22-27, 2007
- 145. *Self-assembly of nano-particles*(i), Universidade Federal de Pernambuco (UFPE), Departamento de Física, Recife, Brazil, July 13, 2007

- 146. Self-assembly of nanoparticles: From simple ingredients to complex phenomena, Research Council of Norway Nanomat Conference, Bergen, Norway, 5-7 June, 2007
- 147. *Electric Polarization and Chain Formation of Nano-Layered Particles,* Norwegian Synchrotron User meeting, Bergen, Norway, 4-5 juni 2007
- 148. *Transport of fluids in nanoporous media,* Annual meeting of the Condensed Matter and Atomic Physics Division of the Norwegian Physical Society, Bergen, Norway, 5 June, 2007
- 149. From Simple Ingredients to Complex Phenomena: Self-assembly of Nanoparticles(i), Universidade de Brasilia, UnB (University of Brasilia) Instituto de Fisika (Institute of Physics) Brasilia, Brazil, April 3, 2007
- 150. From Simple Ingredients to Complex Phenomena: Self-assembly of Nanoparticles(i), Brazilian National Institute for Space Research– INPE - Associate Laboratory for Computing and Applied Mathematics – LAC, São José dos Campos – SP, Brazil, March 23, 2007
- 151. From Simple Ingredients to Complex Phenomena: Self-assembly of Nanoparticles(i), Workshop on "Dynamics of Complex Systems", Natal, Brazil, March 15, 2007
- 152. Synchrotron X-ray scattering studies of self-assembly of nano-layered particles(i), Miniworkshop on "Xray study of nanostructures", Gwangju Institute of Technology, GIST, Gwangju, Korea, February 26, 2007
- 153. *Electric Polarization and Chain Formation of Nano-Layered Particles*(i), Fourth Scandinavian Workshop on Scattering from Soft Matter, MAX-lab, Lund, Sweden,1 February 2007
- 154. How do Complex Phenomena Emerge from Simple Ingredients? Complex Matter Science by Example: Spontaneous and Guided Self-assembly of Nanoparticles(i), Norwegian University of Science and Technology, Department of Physics Colloqium, January 19, 2007
- 155. Complex Physical Phenomena in Nanolayered Silicates (Clays)(i), Workshop on Neutron and X-ray Scattering for the Structures and Dynamics of Nanoscale Materials, KAIST, Daejeon, Korea, December 7-8, 2006
- 156. Complex Physical Phenomena in Clays: Spontaneous and Guided Selfassembly of Clay Nanolayered Particles studied by Synchrotrons and Microscopes(i), Massachusetts Institute of Technology (MIT), Department of Earth, Athmospheric and Planetary Sciences, Dan Rothman Group, November 30 2006
- 157. Nanolayered Silicates (Clays) as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), Veeco Scandinavian SPM Conference and Users Meeting 2006, Chalmers University, Goteborg, Sweden, November 15, 2006
- 158. Spontaneous and guided self-assembly of clay nanoplatelets, Universidade Federal de Pernambuco (UFPE), Dept. of Physics, Mario Engelsberg Group, Recife, Brazil, July 27, 2006
- 159. Spontaneous and guided self-assembly of clay nanoplatelets (i), Postech, Department of Physics, Pohang, South Korea, July 5, 2006
- 160. Spontaneous and guided self-assembly of clay nanoplatelets(i), KAIST, Korea Advanced Institute of Science and Technology, Sung-Min Choi and Mahn Won Kim groups, South Korea, July 4 2006
- 161. *Phase separation and orientational orderingin aqueous suspensions of fluoro-hectorite clay,* Groupe francais des argiles GFA Clay Min. Society CMS Clay Conference, Ile d'Oleron, (France) June 2006
- 162. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), University of Utrecht, Netherlands, Department of Geochemistry, February 2006
- 163. Intercalation-enhanced electric polarization and chain formation of nano-layered clay platelets in oil, 13th International Conference on Clays, Tokyo (Japan), August 2005
- 164. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), Universidade Federal de Pernambuco (UFPE), Departments of Physics and Chemistry, Recife, Brazil, July 2005
- 165. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), Universidade Joao Pessoa, Departement of Physics, Paraiba, Brazil, July 2005
- 166. From nanotechnology to applied geology, are there any links?, Research Council of Norway, NANOMAT-Birkeland Conference, 02-03/06 2005 in Trondheim, Norway
- 167. Nanolayered Silicates (Clays) as Examples of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), XXVIII Encontro Nacional de Física da Matéria Condensada 10 a 14 de maio de 2005 Santos, SP, Brazil, May 2005

- 168. *Complex Interconnected Materials: Networks and Processes*(i), NATO ASI on Dynamics of Complex Interconnected Biosensor Systems: Networks and Bioprocesses, Geilo, Norway, April 2005
- 169. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), University of Hawaii, Department of Physics, Klaus Sattler Group, Honolulu, USA, October 2004
- 170. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), Gwangju Institute of Technology, GIST, Department of Materials Science, South Korea, October 2004
- 171. *Physics, Physicists and Nanotechnology*(i), Invited talk on behalf of Norwegian Physical Society, Research Council of Norway - NANOMAT conference, Soria-Moria, Oslo, Norway, 3-4 Juni 2004
- 172. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes, ESPCI, Paris, France March 11<sup>th</sup> 2004
- 173. Clays as Example of Soft and Complex Matter: From Nano to Macro(i), Institut Non-Lineaire de Nice, France, Feb 27<sup>th</sup> 2004
- 174. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes(i), LNLS, Campinas, Brazil, March 2004
- 175. Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes (invited), University of Brasilia, Department of Physics, Brazil, October 2003
- 176. Soft and Complex Matter: From Nano to Macro (invited), Annual meeting of the Norwegian Physical Society, Sundvollen, Norway 9-12 August 2003
- 177. *Clays: Nano physics and Macro Petroleum Physics* (invited), Workshop on "Petroleum Related Science and Technology", Brasilia, Brazil, July 2002
- 178. *Self-affinity and crossover of a clay deposit,* April 22<sup>nd</sup> 2002, invited talk at 27th General Assembly of the European Geophysical Society, Nice France 22-26 April 2002

# Other conference contributions past 20 years:

- 1. Moringa Oleifera Proteins as Pickering Stabilizers: From Nanostructures to Rheology, <u>Namrah Azmi</u>, Andrew Akanno, Matti Knaapila, Adrian Rennie, Leonard Rweyemamu, Jon Otto Fossum, online poster presentation at MRS Fall Meeting, Boston, MA, USA, Dec 5, 2023
- 2. Structural Coloration in Water Droplets Containing Suspended Clay Mineral Nanosheets, <u>Yue Yu</u>, Paulo Michels Brito, Jon Otto Fossum, poster at MRS Fall Meeting, Boston, MA, USA, Nov 28 Dec 1, 2023
- 3. Electrohydrodynamics for Efficient Droplet Coalescence in Food-Grade Non-Aqueous Pickering Emulsions, Bruno Telli Ceccato, Namrah Azmi, Andrew Akanno, Paul Dommersnes, Rosiane Lopes da Cunha, Lucimara Gaziola de la Torre, Jon Otto Fossum, poster at MRS Fall Meeting, Boston, MA, USA, Nov 28 - Dec 1, 2023
- Multiple Effects of Electrohydrodynamics in a Food-grade Non-aqueous Moringa Pickering Emulsions, <u>B. Telli Ceccato</u>, N. Azmi, A. Akanno, P. G. Dommersnes, R. Lopes Da Cunha, L.G. De La Torre, J. O. Fossum, poster presented at III International Symposium on Moringa 2023 - Brazil Edition, Aracju -Sergipe, Brazil, November 8-11, 2023
- Moringa oleifera proteins in pickering emulsions, Namrah Azmi, Andrew Akanno, Matti Knaapila, Adrian Rennie, Leonard Rweyemamu, <u>Jon Otto Fossum</u>, poster presented at III International Symposium on Moringa 2023 - Brazil Edition, Aracju -Sergipe, Brazil, November 8-11, 2023
- Bacteria Motility in Laponite Suspensions, <u>Andrew Akanno</u> (NTNU), Renaud Baillou (ESPCI), Eric Clement (ESPCI), Jon Otto Fossum (NTNU), invited talk presented at 9th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters, September 15-16, 2023
- Structural coloration in water droplets containing suspended clay mineral nanosheets, <u>Yue Yu</u>, Paulo H. Michels-Brito, Jon Otto Fossum, invited talk presented at 9th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters, September 15-16, 2023
- 8. Buckling of Pickering Layers, <u>Negar Azizi</u>, Jon Otto Fossum and Paul Gunnar Dommersnes, invited talk presented at 9th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters, September 15-16, 2023

- 9. *Moringa Oleifera Proteins as Pickering Stabilizers*, <u>Namrah Azmi</u>, Andrew Akanno, Matti Knaapila, Adrian Rennie, Leonard Rweyemamu, Jon Otto Fossum, invited talk presented at 9th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters, September 15-16, 2023
- 2D world in the Soft and Complex Matter Lab clay, graphene and beyond, <u>Barbara Pacakova</u>, Marian Matejdes, Anupma Thakur, Nithin Chadran, Babal Anasori, Josef Breu, Jon Otto Fossum, invited talk presented at 9th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters, September 15-16, 2023
- 11. Bulk Self-Assembly of Hybrid GO-clay Nanosheets, <u>Paulo Henrique Michels-Brito</u>, Barbara Pacakova, Martin Bygdas, Veslemøy Osmundsen, Josef Breu, Jon Otto Fossum, poster presented at Euroclay2023, Bari Italy, July 24-27, 2023
- 12. *Large Band Gap of Insulator Clay Nanosheets*, <u>Barbara Pacakova</u>, Vullum Per Erik, Breu Josef, Fossum Jon Otto, poster presented at Euroclay2023, Bari Italy, July 24-27, 2023
- 13. Synchronous Synthesis of Nitrogen-Doped Graphene and Carbon Nanotubes in a Nanolayered Silicate, Barbara Pacakova, Matejdes Marian, Wagner Daniel, <u>Henrique Michels Brito Paulo</u>, Kvalem Seljelid Konstanse, Michels Leander, Wells Justin, Raaen Steinar, Breu Josef, Fossum Jon Otto, poster presented at Euroclay2023, Bari Italy, July 24-27, 2023
- 14. Bright, Noniridescent Structural Coloration from Clay Mineral Nanosheet Suspensions, Jon Otto Fossum, <u>Paulo Henrique Michels Brito</u>, Osvaldo Trigueiro Neto, Volodymyr Dudko, Josef Breu, talk presented at Euroclay2023, Bari Italy, July 24-27, 2023
- 15. *CO2 Capture by Hydroxides Interstratified in the Nanolayered Space of a Clay Mineral,* Jon Otto Fossum, Kristoffer W. B. Hunvik, Konstanse K. Seljelid, Patrick Loch, <u>Paulo Henrique Michels Brito</u>, Josef Breu, talk presented at Euroclay2023, Bari Italy, July 24-27, 2023
- CO2 intercalation in cation exchanged natural and synthetic clay minerals, Konstanse K. Seljelid, Paulo H. M. Brito, Sunniva Omdal, Torstein Nordvik, Kenneth D. Knudsen, Josef Breu, Jon Otto Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Communication, Connectivity and Growth, March 13-23, 2023
- 17. Locomotion of bacteria through Soft Matter, <u>Andrew Akanno</u>, Solene Meinier, Eric Clement, Jon Otto Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Communication, Connectivity and Growth, March 13-23, 2023
- Pickering Droplets: Formation, Deformation and Rheology, <u>Negar Azizi</u>, Jon Otto Fossum, Paul Gunnar Dommersnes. Poster presented at the Geilo School-The Physics of Evolving Matter: Communication, Connectivity and Growth, March 13-23, 2023
- 19. *Magnetic response of nematic suspensions of clay nanosheets,* <u>Yu, Yue</u>; Michels-Brito, Paulo H.; Pacáková, Barbara; Michels, Leander; Toma, Sergio H.; Araki, Koiti; Breu, Josef; Knudsen, Kenneth D; Fossum, Jon Otto. Poster presented at the Geilo School-The Physics of Evolving Matter: Communication, Connectivity and Growth, March 13-23, 2023
- 20. *Electric-Induced Oil-in-Oil Pickering Emulsion Formation*, <u>B. Telli Ceccato</u>, A. Akanno, P. G. Dommersnes, R. Lopes da Cunha, L.G. de la Torre, J. O. Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Communication, Connectivity and Growth, March 13-23, 2023
- Self-Wrinkling Insulating Nanosheets as Substrates for Wrinkling of Graphene, Graphene Oxide and Other 2D Materials. <u>Barbara Pacakova</u>, Paulo Henrique Michels-Brito, Daniel Wagner, Steinar Raaen, Josef Breu, Jon Otto Fossum. Poster presented at MRS Fall Meeting 2022, Boston, USA, Nov 29 -Dec 2, 2022
- 22. 2D Magnetic Nanosheets in Aqueous Suspension. <u>Paulo H. Michels-Brito</u>, Barbara Pacáková, Leander Michels, Sergio H. Toma, Koiti Araki, Josef Breu, Kenneth D. Knudsen, Jon O. Fossum. Poster presented at MRS Fall Meeting 2022, Boston, USA, Nov 29 -Dec 2, 2022
- 23. Carbon Nanotubes and Graphene Flakes Grown Synchronously in the Confined 2D Nanospace of a Layered Silicate. Barbara Pacakova, Marian Matejdes, Daniel Wagner, Paulo Henrique Michels-Brito, Konstanse Kvalem Seljelid, Leander Michels, Justin W. Wells, Steinar Raaen, Josef Breu, Jon Otto Fossum. Poster presented at MRS Fall Meeting 2022, Boston, USA, Nov 29 -Dec 2, 2022

- 24. Bulk Self-Assembly of Hybrid GO-clay Nanosheets, Paulo H. Michels Brito, Martin Bygdas, Barbara Pacakova, <u>Andrew N. Akanno</u>, Veslemeløy Osmundsen, Josef Breu and Jon Otto Fossum, Poster presented at MRS Fall Meeting 2022, Boston, USA, Nov 29 -Dec 2, 2022.
- 25. USAXS and optical microscopy studies to investigate swelling and delamination of high aspect ratio clay nanosheets suspended in saline solutions, <u>Osvaldo Trigueiro Neto</u>, Kristian H. Olsen (NTNU, Norway), Paulo H. Michels-Brito, Tomás Plivelic, Leander Michels, Josef Breu, Jon Otto Fossum, Talk given at 8th Annual International Workshop on soft and Complex Matter, Norwegian Academy of Science and Letters DNVA, Oslo, Norway, October 7-8, 2022
- 26. Magnetic response of Janus clay nanosheets. Yue Yu; Michels-Brito, Paulo H.; Pacáková, Barbara; Michels, Leander; Toma, Sergio H.; Araki, Koiti; Breu, Josef; Knudsen, Kenneth D; Fossum, Jon Otto, talk given at 8th Annual International Workshop on soft and Complex Matter, Norwegian Academy of Science and Letters DNVA, Oslo, Norway, October 7-8, 2022
- 27. Development of conductive paints of metallic particles and graphene dispersions for applications in flexible electronics and electromagnetic shielding, <u>Alexsandro Bobsin</u>, Tayná Rodrigues, Iara, Sandro Ferreira, Celso Peter, Willyan Hasenkamp, Carlos A. M. Moraes, Andrew Ndubuisi Akanno, Paulo Henrique Michels Brito, Leander Michels, Jon Otto Fossum, talk given at 8th Annual International Workshop on soft and Complex Matter, Norwegian Academy of Science and Letters DNVA, Oslo, Norway, October 7-8, 2022
- 28. Monitoring lifetime of thermoplastic composites by combining analytics and machine learning, Alexander Harold Sexton, Matti Knaapila, Jon Otto Fossum, Ørjan Martinsen, talk given at 8th Annual International Workshop on soft and Complex Matter, Norwegian Academy of Science and Letters – DNVA, Oslo, Norway, October 7-8, 2022
- 29. Oil-in-oil (O/O) Pickering emulsions for food applications, Bruno Telli Ceccato, Roseane Lopes da Cunha, Lucimara de la Torre, Andrew Akanno, Jon Otto Fossum, talk given at 8th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters DNVA, Oslo, Norway, October 7-8, 2022
- Self-wrinkling large bandgap insulating nanosheets for graphene sensor applications. <u>Paulo Henrique.</u> <u>Michels-Brito</u>, Barbara Pacakova, Josef Breu, Paul Dommersness, Jon Otto Fossum. talk given at 8th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters – DNVA, Oslo, Norway, October 7-8, 2022
- CO2 intercalation in clay minerals, <u>Konstanse K. Seljelid</u>, Kristoffer W. Bø Hunvik, Leide Cavalcanti, Martin Riess, Patrick Loch, Konstanse K. Seljelid, Vegard Josvanger, Paul M. Røren, Dirk Wallacher, Roosevelt D. Droppa, Barbara Pacakova, Paulo H. M. Brito, Kenneth D. Knudsen, Josef Breu, Jon O. Fossum. Talk presented in SESSION 12a Soft Matter & Self Assembly 2: SAS2022, Campinas, Brazil, Sept 11-16, 2022
- 32. *GIXOS Studies of Clay Nanosheets at the Air-Water Interface*. <u>P. H. Michels-Brito</u>, A. M. Gasperini, X. Puentes-Martinez, L. P. Cavalcanti, J. Breu, K. Araki, K. D. Knudsen, J. O. Fossum. Poster presented at SAS 2022, Campinas, Brazil, September 11-16, 2022.
- SAXS Studies of Aqueous suspensions of Magnetic Janus Clay Nanosheets. <u>Paulo H. Michels-Brito</u>, Barbara Pacáková, Leander Michels, Sergio H. Toma, Koiti Araki, Josef Breu, Kenneth D. Knudsen, Jon O. Fossum. Poster presented at SAS 2022, Campinas, Brazil, September 11-16, 2022
- 34. *Gelation Dynamics of a Silica Solution*, <u>Konstanse K. Seljelid</u>, Osvaldo T. Neto, Leide Cavalcanti, Kenneth D. Knudsen, and Jon O. Fossum, poster presented at SAS2022, Campinas, Brazil, Sept 11-16, 2022
- 35. Bright, non-iridescent structural coloration from nematic liquid crystalline of clay nanosheets suspensions. <u>Paulo H. Michels-Brito</u>, Volodymyr Dudko, Daniel Wagner, Paul Markus, Georg Papastavrou, Leander Michels, Josef Breu, Jon Otto Fossum. Talk given at 8th International Liquid Crystal Conference (ILCC) July 24-29, Lisbon, Portugal, 2022.
- USAXS study of high aspect ratio clay nanosheets suspended in saline solution: Nematics in the photonic range. O. Trigueiro Neto; <u>P.H. Michels-Brito</u>; T. Plivelic; J. Breu; B. Pacáková; L. Michels; L. Cavalcanti; K.D. Knudsen; J.O. Fossum. Poster presented at 8th International Liquid Crystal Conference (ILCC) July 24-29, Lisbon, Portugal, 2022.

- Magnetic response of nematic suspensions of clay nanosheets. <u>Y. Yu</u>; B. Pacáková; P.H. Michels-Brito;
   L. Michels; S.H. Toma; K. Araki; J. Breu; K. Knudsen; J.O. Fossum. Poster presented at 8th International Liquid Crystal Conference (ILCC) July 24-29, Lisbon, Portugal, 2022.
- A Photonic Composite Material composed from Cellulose Nano Rods and Exfoliated Clays, <u>A.C.</u> <u>Trindade</u>; M. Carreto; S. Fernandes; M.H. Godinho; J.-O., Fossum. Poster presented at 8th International Liquid Crystal Conference (ILCC) July 24-29, Lisbon, Portugal, 2022
- 39. Advanced physical properties of natural vermiculite clay. <u>Barbara Pacakova</u>, Bera Lahtingen-Dahl, Hanna Demchenko, Paulo Brito, Steinar Raaen, Jon Otto Fossum. Poster presented at Virtual MRS Spring meeting May 23-25.
- Bright, non-iridescent structural coloration from 2D clay nanosheet suspensions. <u>Paulo H. Michels-Brito</u>, Volodymyr. Dudko, Daniel Wagner, Paul Markus, Georg. Papastavrou, Leander Michels, Josef Breu, Jon O. Fossum. Poster presented at Virtual MRS Spring meeting 2022, May 23-25
- 41. *Large band gap of insulator clay nanosheets*. <u>Barbara Pacakova</u>, Per Erik Vullum, Josef Breu, Jon Otto Fossum. Poster presented at Virtual MRS Spring meeting May 23-25.
- 42. *Graphene confined in layered silicate*. <u>Barbara Pacakova</u>, Marian Matejdes, Daniel Wagner, Paulo Henrique Michels-Brito, Konstanse Kvalem Seljelid, Leander Michels, Justin W. Wells, Steinar Raaen, Josef Breu, Jon Otto Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21-31, 2022
- 43. Study on orientation of nematic suspensions of clay nanosheets in magnetic field. Yue Yu; Barbara Pacáková, Paulo H. Michels Brito, Leander Michels, Sergio H. Toma, Koiti Araki, Josef Breu, Kenneth D. Knudsen, Jon O. Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21-31, 2022
- 44. 2D Magnetic Janus Clay Nanosheets, <u>Paulo H. Michels-Brito</u>, Barbara Pacáková, Leander Michels, Sergio H. Toma, Koiti Araki, Josef Breu, Kenneth D. Knudsen and Jon O. Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21-31, 2022
- Bright, Non-Iridescent Structural Coloration from Clay Mineral Nanosheet Suspensions, <u>Paulo H.</u> <u>Michels-Brito</u>, Volodymyr Dudko, Daniel R. Wagner, Paul Markus, Georg Papastavrou, Leander Michels, Josef Breu, Jon O. Fossum. Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, March 21-31, 2022
- Unmodified Clay Nanosheets at the Air-Water Interface, P. H. Michels-Brito, A. M. Gasperini, L. Mayr, X. Puentes-Martinez, R. Tenorio, D. Wagner, K. D. Knudsen, K. Araki, R.G. Oliveira, J. Breu, L. P. Cavalcanti, J. O. Fossum, Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, March 21-31, 2022
- 47. Optimizing processing of plant derived Pickering food emulsions. Pickering emulsions based on foodgrade oil and edible nanoparticles extracted from Moringa Oleifera tree, <u>Namrah Azmi</u>, Leonard Rweyemamu, Jon Otto Fossum, Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21-31, 2022
- Investigating swelling and delaminating clay nanolayers in a controlled manner, <u>Trigueiro Neto,</u> <u>Osvaldo</u>; Olsen, Kristian H.; Michels-Brito, Paulo H.; Plivelic, Tomás; Breu, Josef; Pacáková, Barbara; Michels, Leander; Liljeström, Ville; Cavalcanti, Leide; Knudsen, Kenneth; Fossum, Jon Otto; Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21-31, 2022
- Structural investigation of the gelation dynamics of colloidal silica, <u>Konstanse K. Seljelid</u>, Leide Cavalcanti, Kenneth D. Knudsen, Marcio Carvalho, Ingebret Fjelde, Yves Méheust, Jon Otto Fossum, Poster presented at the Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21-31, 2022
- Nanorafts clay nanosheets decorated with magnetic nanoparticles. <u>Paulo H. Michels-Brito</u>, Barbara Pacáková, Leander Michels, Sergio H. Toma, Koiti Araki, Josef Breu, Kenneth D. Knudsen, Jon Otto Fossum. Talk given in session Defect Engineering and Interfacial Effects in 2D Materials II, APS March meeting 2022, Chicago, USA, March 14-18, 2022.

- 51. Self-wrinkling large bandgap insulating nanosheets for graphene sensor applications. <u>Paulo H.</u> <u>Michels-Brito</u>, Barbara Pacakova, Josef Breu, Paul Dommersness, Jon Otto Fossum. Poster presented at Virtual APS March meeting 2022, March 14-18, 2022.
- 52. *Graphene confined in layered silicate*. <u>Barbara Pacakova</u>, Marian Matejdes, Daniel Wagner, Paulo Henrique Michels-Brito, Konstanse Kvalem Seljelid, Leander Michels, Justin W. Wells, Steinar Raaen, Josef Breu, Jon Otto Fossum. Poster given at APS March meeting 2022, Chicago, USA, March 14-18, 2022.
- 53. *Large band gap of insulator clay nanosheets*. <u>Barbara Pacakova</u>, Per Erik Vullum, Josef Breu, Jon Otto Fossum. Poster given at APS March meeting 2022, Chicago, USA, March 14-18, 2022.
- 54. Advanced physical properties of natural vermiculite clay. <u>Barbara Pacakova</u>, Bera Lahtingen-Dahl, Hanna Demchenko, Paulo Brito, Steinar Raaen, Jon Otto Fossum. Poster given at APS March meeting 2022, Chicago, USA, March 14-18, 2022.
- 55. *Magnetic Janus Clay Nanosheets*, <u>Barbara Pacáková</u>, Paulo H. Michels-Brito, Leander Michels, Sergio H. Toma, Koiti Araki, Josef Breu, Kenneth D. Knudsen, Jon Otto Fossum. Talk given at Indiana University-Purdue University, Indianapolis, Indiana, USA, March 11, 2022.
- 56. USAXS Study of High Aspect Ratio 2D Clay Nanolayer Suspended in saline Water—Nematic Self-Assembly in the Photonic Range of Interlayer Spacings, Osvaldo Trigueiro Neto, Paulo H. Michels Brito, Tomás S. Plivelic, Daniel Wagner, Josef Breu, Barbara Pacakova, Kenneth Knudsen and Jon O. Fossum, talk in Session SB09.13.07: Bioinspired Materials III, MRS Fall Meeting 2021, Boston, USA, Nov 29 -Dec 2, 2021
- 57. *Graphene Confined in Layered Silicate*, <u>Barbara Pacakova</u>, Marian Matejdes, Paulo H. Michels Brito, Leander Michels, Josef Breu and Jon O. Fossum, poster given at SESSION EQ20.20.21: Inorganic-Organic and Hybrid 2D Materials, MRS Fall Meeting 2021, Boston, USA, Nov 29 -Dec 2, 2021
- 58. Nanorafts—Clay Nanosheets Decorated with Magnetic Nanoparticles, Paulo H. Michels Brito, <u>Barbara Pacakova</u>, Leander Michels, Ville Liljestrom, Sergio Toma, Daniel Wagner, Kenneth Knudsen, Koiti Araki, Josef Breu and Jon O. Fossum, talk given at SESSION EQ02.08.07: Nanostructures of Low Dimensional Materials I, MRS Fall Meeting 2021, Boston, USA, Nov 29 -Dec 2, 2021
- Bright, Non-Iridescent Structural Coloration from Clay Mineral Nanosheet Suspensions, <u>Paulo H.</u> <u>Michels Brito</u>, Volodymyr Dudko, Daniel Wagner, Josef Breu and Jon O. Fossum, talk given at SESSION SB09.05.02: Bioinspired Materials III, MRS Fall Meeting 2021, Boston, USA, Nov 29 -Dec 2, 2021
- Cellulose-Based Membranes for Effective Capture of Oil Microdroplets in Water, <u>Ana C. Trindade</u>, Ana P. Almeida, João Oliveira, João Canejo, Susete Fernandes, Jon O. Fossum and Maria Helena Godinho, talk given at SESSION SB11: Complex Fluids/Emulsions, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 61. *Binary Liquid Crystals Based on Clay and Graphene Oxide*, <u>Barbara Pacakova</u>, Romulo Tenorio, Marian Matejdes, Yves Meheust, Paulo H. Michels Brito Josef Breu and Jon O. Fossum, talk presented at SESSION SB11: Colloids, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 62. *Tuning Synthetic Active Matter—From Living Clusters to Liquid Swarms,* <u>Paul Dommersnes</u> and Jon O. Fossum, talk presented at SESSION SB11: Active Matter, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 63. Wrapping of Drops and Nanoparticles in Clay Nanosheets, <u>Osvaldo Trigueiro Neto</u>, Ville Liljeström, Koiti Araki, Lina Mayr, Josef Breu, Jon O. Fossum and Paul Dommersnes, poster presented at SESSION SB11: Complex Fluids/Emulsion, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 64. *Nanofluidics in Smectite Clays*, Leide P. Cavalcanti, Heloisa N. Bordallo, Kenneth Knudsen and Jon O. <u>Fossum</u>, poster presented at SESSION FF02: 2D Nanomaterials-Based Nanofluidics, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 65. *Collective Motion of Quincke Rotating Beads*, <u>Etien Martinez Roman</u>, Tommy Fjelde Kristiansen, Barbara Pacakova, Jaako Timonen, Paul Dommersnes and Jon O. Fossum, poster presented in session MS01 Extreme Mechanics, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 66. Clay Hybrid Nano-Layer Assembly, Structure and Mechanics at the Air-Water Interface, <u>Paulo H.</u> <u>Michels Brito</u>, Antônio Gasperini, Lina Mayr, Ximena Puentes-Martinez Romulo Tenorio, Leide P.

Cavalcanti, Koiti Araki, Josef Breu, Kenneth Knudsen and Jon O. Fossum, poster presented at SESSION MS03: Biocomposites, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019

- 67. *Cellulose-Based Materials for Magnetic Paper*, Ana C. Trindade, João Canejo, Sergio H. Toma, Susete Fernandes, Maria Helena Godinho, Koiti Araki and Jon O. Fossum, poster presented at SESSION SB01: Soft Robotics, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- 68. Carbon Dioxide and Methane Selectivity of a Smectite Clay with Different Intercalated Cations, Kristoffer W. Hunvik, Leide P. Cavalcanti, Martin Riess, Patrick Loch, Konstanse K. Seljelid, Vegard Josvanger, Roosevelt Droppa, Dirk Wallacher, Barbara Pacakova, Paulo H. Michels Brito, Kenneth Knudsen, Josef Breu and Jon O. Fossum, poster presented at SESSION EN04: Novel Membrane Materials, Metrologies and Applications, MRS Fall Meeting 2019, Boston, USA, Dec 2-6, 2019
- Exfoliation of Clay Nanosheets, Osvaldo Trigueiro Neto, V. V. Liljeström, K. K. Seljelid, L. Mayr, J. Breu,
   P. G. Dommersnes, J. O. Fossum, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
- 70. Carbon dioxide capture and retention by synthetic Fluorohectorite (Fh) clay, Kristoffer W. Bø Hunvik, Leide Cavalcanti, Martin Riess, Patrick Loch, Konstanse K. Seljelid, Vegard Josvanger, Dirk Wallacher, Roosevelt D Droppa, Barbara Pacakova, Paulo Brito, Kenneth D Knudsen, Josef Breu, Jon Otto Fossum, invited talk given at6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
- 71. *Microcapsule controlled gelation in channels and pores such as those in petroleum reservoirs,* Konstanse K. Seljelid, O.T. Neto, V.V. Liljeström, I. Fjelde, M. Carvalho, J.O. Fossum, invited talk given a t6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
- 72. Water vapor diffusive transport in a smectite clay: Cationic control of normal versus anomalous diffusion, Leander Michels, Yves Méheust, Mario A. S. Altoé, Éverton C. dos Santos, Henrik Hemmen, Roosevelt Droppa Jr., Geraldo J. da Silva, Jon O. Fossum, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
- 73. Clay hybrid nano-layer assembly, structure and mechanics at the air-water interface, Paulo H. Michels-Brito, Antonio M. Gasperini, Lina Mayr, Ximena Puentes Martinez, Rômulo P. Tenório, Leide P. Cavalcanti, Koiti Araki, Josef Breu, Kenneth D. Knudsen, Jon Otto Fossum, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
  - 74. Bacteria swimming in complex fluids, Hector Urra, Gaspad Junot, Paul Dommersnes, Jochen Arlt, Vincent Martinez, Jon Otto Fossum, Eric Clémen, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
  - 75. Active turbulence/Vortex array transition in Quincke rotating beads, Etien Martinez, Tommy Kristiansen, Barbara Pacakova, Jaako Timonen, Paul Dommersnes, Jon Otto Fossum, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, Oct. 6-7, 2019
  - 76. Cellulose-based Membranes for Effective Capture of Oil Microdroplets in Water, Ana C. Trindade, Ana P.C. Almeida, João Oliveira, João P. Canejo, Susete N. Fernandes, Jon-Otto Fossum, M. Helena Godinho, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
  - 77. *Tuning Photonic Properties of Cellulose-Clay Nano Structures*, Ana C. Trindade, Miguel Carreto, Susete Fernandes, Matthias Daab, Josef Breu, Maria Helena Godinho J. O. Fossum, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019
  - 78. *Polar Flocking of Active Clusters*, Paul Dommersnes & Jon Otto Fossum, invited talk given at 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, October 6-7, 2019

- 79. *Turbulent vortex dynamic with Quincke rotating beads*, Etien Martinez, Paul Dommernes, Barbara Pacakova, Tommy Kristiansen, Jaakko Akkola, Jon Otto Fossum, Oral and poster presentation at Gordon Research Conference and Seminar. Soft Condensed Matter Physics. New London, August 2019. United States Gordon Research Conference and Seminar. Soft Condensed Matter Physics. New London, August 2019. United States.
- 80. Water mobility and its influence in the capture and retention of CO2 in the interlayer space of Fluorohectorite clay minerals, Simon R. Larsen, Laurie P. Aldridge, Leander Michels, Will P. Gates, Éverton C. dos Santos, Leide P. Cavalcanti, Jon Otto Fossum, Heloisa N. Bordallo, keynote lecture presented at Euroclay2019, Paris France 1-5 July 2019
- 81. Water vapor diffusive transport in a smectite clay: Cationic control of normal versus anomalous diffusion, Leander Michels, Yves Méheust, Mario A. S. Altoé, Éverton C. dos Santos, Henrik Hemmen, Roosevelt Droppa Jr., Jon O. Fossum, Geraldo J. da Silva, lecture presented at Euroclay2019, Paris France 1-5 July 2019
- 82. *The Role of Interlayer Cations for CO2 Capture in a Smectite Clay*, Kristoffer W. Bø Hunvik, Leide Cavalcanti, Matthias Daab, Konstanse K. Seljelid, Vegard Josvanger, Roosevelt D. Droppa, Barbara Pacáková, Paulo H. Michels-Brito, Kenneth D. Knudsen, Josef Breu, Jon Otto Fossum, poster presented at Euroclay2019, Paris France 1-5 July 2019
- 83. *Fluorohectorite, a promising material for drug delivery*, E.C. dos Santos, W.P. Gates, L. Michels, J.O. Fossum, H.N. Bordallo, poster presented at Euroclay2019, Paris France 1-5 July 2019
- 84. *Clay nanoparticle organization at the air-liquid interface*, Paulo H. Michels-Brito, Antonio M. Gasperini, Ximena Puentes-Martinez, Leide P. Cavalcanti, Josef Breu, Koiti Araki, Kenneth D. Knudsen, Jon Otto Fossum, poster presented at Euroclay2019, Paris France 1-5 July 2019
- 85. *Iridiscent Cellulose-Clay Nano Structures*, Ana Catarina Trindade, Susete Fernandes, Ville Liljeström, Matthias Daab, Josef Breu, Maria Helena Godinho, Jon Otto Fossum, poster presented at Euroclay2019, Paris France 1-5 July 2019
- 86. In-situ intercalation of pharmaceutics in smectite clays, Leander Michels, Everton dos Santos, Barbara Pacakova, Kristoffer Hunvik, Leide P. Cavalcanti, Koiti Araki, Heloisa N. Bordallo, Kenneth D. Knudsen, Jon Otto Fossum, poster presented at Euroclay2019, Paris France 1-5 July 2019
- 87. *Iridiscent Cellulose-Clay Nano Structures*, A.C. Trindade; J. Breu; M.H. Godinho; J.-O. Fossum, poster presented at Materiais 2019, Lisboa, Portugal, April 16th, 2019.
- 88. Patterned non-woven cellulosic membranes for recovery of oil microdroplets, A. C. Trindade, A. P. C. Almeida, J. Oliveira, J. P. Canejo, S. N. Fernandes, J.-O. Fossum, M. H. Godinho, poster presented at EUPOC2019 Electrospinning and Related Techniques: From Design to Production of Advanced Polymer Materials and Devices, Como, Italy, May 13th and 14th 2019.
- 89. *Nano-wrapping of nanoparticles*, O. Trigueiro Neto, V. V. Liljeström, K. Araki, P. G. Dommersnes, J. O. Fossum, poster presented at The Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, Mar 11-21, 2019
- 90. *Collective motion of Quincke rotating beads*, Etien Martinez, Paul Dommernes, Barbara Pacakova, Tommy Kristiansen, Jaakko Akkola, Jon Otto Fossum, poster presented at The Geilo School 2019. Evolving Soft Matter: Shape, Dynamics and Functionality. Geilo, March 2019. Norway.
- Electrostatic self-Assembly of facetted, anisotropic, and helical nanoparticle superstructures, V. Liljeström, A. Ora, J. Mikkilä, J. O. Fossum, M. A. Kostiainen, poster presented at The Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, Mar 11-21, 2019
- 92. Clay nanoparticle organization at the air-liquid interface, P. H. Michels-Brito, A. M. Gasperini, X. Puentes-Martinez, L. P. Cavalcanti, J. Breu, K. Araki, K. D. Knudsen, J. O. Fossum, poster presented at The Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, Mar 11-21, 2019
- 93. Determining the Role of the Ionic Radii of Interlayer Cations for CO2 Capture in Synthetic Smectite Clay, Kristoffer W. Hunvik, Leide Cavalcanti, Matthias Daab, Barbara Pacakova, Paulo H. Brito, Kenneth Knudsen, Josef Breu and Jon O. Fossum, poster presented at The Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, Mar 11-21, 2019

- 94. *Electrostatic self-assembly protein cages, viruses, and synthetic nanoparticles into periodic superstructures with distinct shape,* V. Liljeström, A. Ora, J. Mikkilä, J. O. Fossum, M. A. Kostiainen, talk presented at Colloidal Science and Metamaterials 2019, Paris, France, Feb 25-27, 2019
- 95. Determining the Role of the Ionic Radii of Interlayer Cations for CO2 Capture in Synthetic Smectite Clay, Kristoffer W. Hunvik, Leide Cavalcanti, Matthias Daab, Barbara Pacakova, Paulo H. Brito, Kenneth Knudsen, Josef Breu and Jon O. Fossum, poster presented at MRS Fall Meeting 2018, Boston, USA, Nov 25-30, 2018
- Assembly and fixation of microparticles confined to interfaces and droplets, V. Liljeström, A. T. Krüger, O. T. Neto, P. Dommersnes, J. O. Fossum, talk presented at the 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, Oct 21-22, 2018
- 97. *Nanofluidics in smectite clays,* Leide P. Cavalcanti, Heloisa N. Bordallo, Kenneth D. Knudsen, Jon Otto Fossum, talk presented at the 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, Oct 21-22, 2018
- 98. Surface Modification of Clay for Self-Assembled Materials, P. H. Michels-Brito, B. Pacáková, V. Liljeström, L. Cavalcanti M. Stoter, K. D. Knudsen, J. Breu, J. O. Fossum, talk presented at the 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, Oct 21-22, 2018
- 99. Determining the Role of the Ionic Radii of Interlayer Cations for CO2 Capture in Synthetic Smectite Clay, Kristoffer W. Hunvik, Leide Cavalcanti, Matthias Daab, Barbara Pacakova, Paulo H. Brito, Kenneth Knudsen, Josef Breu and Jon O. Fossum talk presented at the 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, Oct 21-22, 2018
- 100.*Collective motion of Quincke rotating beads*, Etien Martinez, Paul Dommernes, Barbara Pacakova, Tommy Kristiansen, Jaakko Akkola, Jon Otto Fossum, Summer School: Active Matter and Non-Equilibrium Statistical Physics. Ecole de Physique des Houches, Les Houches, France, September 2018.
- 101. *Turbulent-like behavior in the collective motion of electro-rotating beads*, Etien Martinez, Paul Dommernes, Barbara Pacakova, Tommy Kristiansen, Jaakko Akkola, Jon Otto Fossum, oral presentation at 5th Annual International Workshop on Soft and Complex Matter. Oslo, Norway October 2018
- 102.*Nanolayered Clay—2D Natural Material*, B. Pacakova, P. Michels Brito, S. Godrich, K.W.B. Hunvik, J. Breu, J. O. Fossum poster presented at MAX IV Summer School, Lund, Sweden, May 21-29, 2018
- 103. *Nanolayered clay a 2D natural material*, B. Pacakova, S. Godrich, K. Hunvik, J. Breu, J. O. Fossum, poster presented at MRS Fall Meeting, Boston, USA 26. November 1. December 2017.
- 104.Clay new important member of 2D materials family?, B. Pacakova, J.O. Fossum, T. Verhagen, J. Vejpravova, M. Kalbac, talk presented at 4th Annual International Workshop on Soft and Complex Matter, Oslo 29-30 Oct. 2017
- 105. Why are high charge density clays effective for CO2 capture?, L. P. Cavalcanti, G. Kalantzopoulos, P. Sobas, H. N. Bordallo, G. Helgesen, K. D. Knudsen, J. O. Fossum, Norsk Fysisk Selskap Fysikermøtet 2017, Tromsø Aug 7-9 2017
- 106. Absorption and desorption of CO2 in vermiculite and fluorohectorite clays as studied by photoemission and temperature programmed desorption, <u>K.W.B. Hunvik</u>, X. Yu, S. Raaen and J.O. Fossum, poster presented at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session NT14: CO2 or Methane Capture by Clays, Granada Spain July 21<sup>st,</sup> 2017
- 107. Vapor transport in a porous smectite clay: from normal to anomalous diffusion, Leander Michels, Yves Méheust, Mario A. S. Altoé, Henrik Hemmen, Roosevelt Droppa Jr., Giovanni Grassi, Jon O. Fossum and Geraldo J. da Silva, poster presented at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session ESO4: Clay Barriers Performance in the Long-Term Isolation of Waste: Thermal; Hydro-Mechanical and Chemical Interactions, Granada Spain July 21<sup>st,</sup> 2017
- 108. Clay model for drug adsorption: study of the interaction of ciprofloxacin with Li-fluorhectorite, Anabel Lam, Aramis Rivera, Claudio M. Zicovich-Wilson, Luis Javier Alvarez and <u>Jon Otto Fossum</u>, poster presented at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session OM05: Computational Modeling of Clay Minerals and Related Materials, Granada Spain July 18<sup>t,h</sup> 2017

- 109. *High charge density smectite clays for CO2 capture*, <u>Leide P. Cavalcanti</u>, Georgios Kalantzopoulos, Pawel Sobas, Heloisa N. Bordallo, Geir Helgesen, Kenneth D Knudsen and Jon Otto Fossum, talk presented at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session ES02: Environmental Applications of Clay Minerals, Granada Spain July 17<sup>th,</sup> 2017
- 110. Li-fluorohectorite as drug delivery system: incorporation of sulfamethoxazole and trimethoprim, Dayaris Hernández, Lismet Lazo, <u>Leslie Váldez</u>, Louis Charles De Ménorval, Zbigniew Rozinek, Ernesto Altshuler, Jon Otto Fossum and Aramis Rivera, talk presented at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session OM02: Drug Delivery Systems Based on Layered Materials, Granada Spain July 17<sup>th</sup>, 2017
- 111. *Mechanics and flow of Pickering films*, J.O. Fossum, A. Mikkelsen, P. Dommersnes, Z. Rozynek, poster abstract at ISMC2016, 4th International Soft Matter Conference, Grenoble, France, September 12-16, 2016
- 112. Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs, <u>Éverton C. Santos</u>, Jon Otto Fossum, Heloisa N. Bordallo, talk given at Danscatt Annual meeting, Copenhagen, Denmark, May 26<sup>th</sup> 27<sup>th</sup>, 2016
- 113. Physical capture and release of drug molecules by clays: X-ray and neutron studies, <u>Éverton C. Santos</u>, Jon Otto Fossum, Heloisa N. Bordallo, talk (Startup Seminar) given at Copenhagen University, Copenhagen, Denamark, April 1<sup>st</sup>, 2016
- 114. Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs, <u>Éverton C. Santos</u>, Jon Otto Fossum, Heloisa N. Bordallo, poster presented at 4th International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas, Brazil, February 22th -25th, 2016
- 115. Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations, J. O. Fossum, L. Michels, Z. Rozynek, H. Hemmen, K. Rustenberg, P. A. Sobas, G. N. Kalantzopoulos, .K. D. Knudsen, M. Janek, T. S. Plivelic, G. J. da Silva, poster presented at Clay Colloids in Aqueous Systems -BELBAR conference, Berlin, Germany, 3-4 February 2016
- 116. Stabilization of emulsions by heterocoagulation of clay minerals using a microfluidic device, <u>Gholamipour-shirazi, A.</u>, Carvalho, M. & Fossum, J. O. in 23rd ABCM Int. Congr. Mech. Eng., Rio de Janeiro, Dec. 2015
- 117. Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs, Éverton C. Santos, Leander Michels, Jon Otto Fossum, Heloisa N. Bordallo, poster presented 5th Niels Bohr Institute Academy, Copenhagen, Denmark, November 9th 13th, 2015
- 118. *Mechanics and rheology of Pickering films*, <u>Alexander Mikkelsen</u>, Z. Rozynek, P. Dommersnes, J.O. Fossum, poster presented at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015
- 119. Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs., <u>Éverton C. Santos</u>, Leander Michels, Jon Otto Fossum, Heloisa N. Bordallo, poster presented at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015
- 120. Li-Fluorohectorite as drug support: incorporation of tramadol and trimethoprim, <u>D. Hernández</u>, L. Valdés, L. C. de Ménorval, J. O. Fossum, A. Rivera, poster presented at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015
- 121. Ciprofloxacin intercalation into a synthetic clay (NaFh), <u>L. Valdés</u>, J. Jiménez, I. Pérez, E. L. Hansen, Z. Rozynek, L. C. de Ménorval, E. Altshuler, J. O. Fossum, A. Rivera, poster presented at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015
- Vancomicyn incorporation into a smectites: preliminary studies, <u>S. Alfonso</u>, L. Valdés, L. C. de Ménorval,
   E. Estevez, J. O. Fossum, A. Rivera, poster presented at The International Conference "Material Science in the Age of Sustainability", Havana, Cuba, June 29<sup>th</sup> July 1<sup>st</sup> 2015
- 123. *Mechanics and rheology of Pickering films*, <u>Alexander Mikkelsen</u>, Z. Rozynek, P. Dommersnes, J.O. Fossum, invited talk given at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015
- 124. Hydration, cation-exchange process and storage ability og clay particles, <u>Everton C. Santos</u>, L. Michels, M.A.S. Altoe, J.O. Fossum, H. Bordallo, invited talk given at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015

- Ciproflaxicin intercalation into a synthetic clay (NaFh), <u>L. Valdes</u>, J. Jimenez, L. Perez, E.L. Hansen, Z. Rozynek, L.C. de Menorval, E. Altshuler, J.O. Fossum, A. Rivera, invited talk given at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015
- 126. *Mechanics and rheology of Pickering films*, <u>Alexander Mikkelsen</u>, Z. Rozynek, P. Dommersnes, J.O. Fossum, poster presented at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015
- 127. Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs., <u>Éverton C. Santos</u>, Leander Michels, Jon Otto Fossum, Heloisa N. Bordallo, poster presented at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015
- 128. Interaction between a synthetic clay (LiFh) and NSAIDs drugs, <u>L. Valdes</u>, D. Hernandez, L-C. de Menorval, J.O. Fossum, A. Rivera, poster presented at MarchCOMeeting'15-JuneEdition, Havana, Cuba, June 24<sup>th</sup> -26<sup>th</sup> 2015
- 129. *Mechanics and rheology of Pickering films*, <u>Alexander Mikkelsen</u>, Z. Rozynek, P. Dommersnes, J.O. Fossum, invited talk given at *Nordic Physics Days*, NTNU, Trondheim Norway, June 9-12, 2015
- 130. Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations, Leander Michels, Jon Otto Fossum, Zbigniew Rozynek, Henrik Hemmen, Karin Rustenberg, Pawel A. Sobas, Georgios N. Kalantzopoulos, Geir Helgesen, Kenneth D. Knudsen, Marian Janek, Tomás S. Plivelic, Geraldo José da Silva, invited talk given at Nordic Physics Days, NTNU, Trondheim Norway, June 9-12, 2015
- Capture and release of drug molecules by clays, <u>Éverton C. Santos</u>, Leander Michels, Jon Otto Fossun, Heloisa N. Bordallo, poster presented at *Nordic Physics Days*, NTNU, Trondheim Norway, June 9-12, 2015
- 132. Hydration states of Ni-Fluorohectorite smectite clay studied by X-ray diffraction, M. A. S. Altoé, <u>L. Michels</u>, G. Grassi, L. Ribeiro, E. C. dos Santos, J. O. Fossum, R. Droppa Jr, G. J. da Silva, poster presented at at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 133. A Microfluidic Approach to Produce Monodisperse O/W Emulsions Stabilized by Laponite Nanoparticles, <u>Azarmidokht Gholamipour-Shirazi</u>, Marcio Carvalho, Jon Otto Fossum, poster presented at at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 134. Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations, L. <u>Michels</u>, J.O. Fossum, Z. Rozynek, H. Hemmen, K. Rustenberg, P.A. Sobas, G.N. Kalantzopoulos, K.D. Knudsen, M. Janek, T.S. Plivelic, G.J. da Silva, poster presented at at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 135. *Mechanics and rheology of Pickering films, <u>Alexander Mikkelsen</u>, Zbigniew Rozynek, Paul Dommersnes and Jon Otto Fossum, poster presented at at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway*
- 136. Capture and release of drug molecules by clays, <u>Éverton C. Santos</u>, Jon Otto Fossun, Heloisa N. Bordallo, poster presented at at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 137. Incorporation of Ciprofloxacin into NaFh clays: slow-release systems, <u>L. Valdés</u>, J. Jiménez, I. Pérez, E. L. Hansen, Z. Rozynek, L. C. de Ménorval, E. Altshuler, J. O. Fossum, A. Rivera, poster presented at at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, March 16-26, 2015 at Bardøla Høyfjellshotel, Geilo, Norway
- 138. *Quincke Rotating Drops*, <u>Alexander Mikkelsen</u>, Zbigniew Rozynek, Paul Dommersnes, Jon Otto Fossum, poster at 2014 MRS Fall Meeting & Exhibit, Symposium JJ 3D Mesoscale Architectures–Synthesis, Assembly, Properties and Applications, Boston, Massachusetts, USA, November 30 December 5, 2014
- 139. Analysis of the confined cation-exchange process via XRD and EDS experiments, Éverton C. Santos, G. Grassi1, L. Michels, Z. Rozynek, M.A.S. Altoé, C.L.S. da Fonseca, R. Droppa Jr., A. Gholamipour-Shirazi, J.O. Fossum, and G.J. da Silva, poster presented 4<sup>th</sup> Niels Bohr Institute Academy, Copenhagen, Denmark, Nov. 10<sup>th</sup> 14<sup>th</sup>, 2014

- 140. Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations, <u>Leander Michels</u>, Jon Otto Fossum, Zbigniew Rozynek, Henrik Hemmen, Karin Rustenberg, Pawel A. Sobas, Georgios N. Kalantzopoulos, Geir Helgesen, Kenneth D. Knudsen, Marian Janek, Tomás S. Plivelic, Geraldo José da Silva, talk at CLIMIT PhD Seminar 2014 Oslo, 21 -22 October 2014
- 141. *Quincke rotating drops*, <u>Alexander Mikkelsen</u>, Zbigniew Rozynek, Jon Otto Fossum, Paul Dommersnes, poster presented at FLOW14: 1st International Conference on Micro & Nanofluidics: Fundamentals and Applications, University of Twente The Netherlands, 18-21 May 2014
- 142. Colloidal particle tubes by sinking objects, <u>Alexander Mikkelsen</u>, Arne Halvor Thingstad Pedersen, Zbigniew Rozynek, Paul Dommersnes, Jon Otto Fossum, poster presented at FLOW14:, 1st International Conference on Micro & Nanofluidics: Fundamentals and Applications, University of Twente - The Netherlands, 18-21 May 2014
- 143. Intercalation and Retention of CO2 in Fluorohectorite Clay at Near-Ambient Conditions, Leander Michels, Henrik Hemmen, Zbigniew Rozynek, Karin Rustenberg, Tomas Plivelic, Geraldo Jose da Silva, and Jon Otto Fossum, poster presented at European Geosciences Union General Assembly 2014, Vienna, Austria, 27 April 2 May 2014, Symposium ERE2.2, Long term storage of CO2 and the petrophysics of unconventional hydrocarbons: Results from laboratory studies.
- 144. Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at Near-Ambient Condition, Leander Michels, Henrik Hemmen, Zbigniew Rozynek, Karin H. Rustenberg, Tomás S. Plivelic, Geraldo José da Silva, and Jon Otto Fossum, talk presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22, 2014
- 145. *Electrohydrodynamic structuring of colloidal armoured drops,* <u>Z. Rozynek</u>, P. Dommersnes, A. Mikkelsen, L. Michels and J.O. Fossum, talk presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22, 2014
- 146. *Quincke Electrohydrodynamic drop rotation, <u>Alexander Mikkelsen</u>, Zbigniew Rozynek, Paul Dommersnes and Jon Otto Fossum, talk presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22*, 2014
- 147. *Micrometer-Sized Pickering Emulsions Stabilized by Laponite Nanoparticles, Azarmidokht Gholamipour-*<u>Shirazi</u>, Marcio Carvalho, Jon Otto Fossum, talk presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22, 2014
- 148. *EXAFS and XRD studies of water intercalation in synthetic nanosilicate Ni-Fluorohectorit,* <u>Luciano</u> <u>Ribeiro</u>, Leander Michels, Maria Suely Pedrosa Mundim, Marcelo Henrique Sousa, Roosevelt Droppa Jr., J.O. Fossum, Geraldo José da Silva, Kleber Carlos Mundim, poster presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, Feb. 17-22, 2014
- 149. *Cation Exchange in a Synthetic Clay Mineral,* <u>G. Grassi</u>, L. Michels, Z. Rozynek, R. Droppa Jr., A. Gholamipour-Shirazi, J. O. Fossum, and G.J. da Silva, poster presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro PUC-Rio, Brazil, Feb. 17-22, 2014
- 150. Electrohydrodynamic controlled assembly and fracturing of thin colloidal particle films confined at drop interfaces, <u>Zbigniew Rozynek</u>, P. Dommersnes, A. Mikkelsen, L. Michels, J.O- Fossum, talk presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22, 2014
- 151. Janus colloidal shells by microfluidics: Preliminary results on shell fabrication and sintering, Marzena Prus, Anna Kalicka, Tomasz Szymborski, Zbigniew Rozynek, Alexander Mikkelsen, Paul Dommersnes, Jon Otto Fossum, talk presented at 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifica Unversidade Catolica do Rio de Janeiro, PUC-Rio, Brazil, February 17-22, 2014
- 152. Intercalation And Retention In Clay At Near-Ambient Conditions, <u>L. Michels</u>, H. Hemmen, Z. Rozynek, K.H. Rustenberg, T.S. Plivelic, G.J. Silva and J.O. Fossum, NSSM 2014, 11th Nordic Workshop on

Scattering from Soft Matter, , KTH Royal Institute of Technology, Stockholm, Sweden, January 16 – 17, 2014

- 153. A New Approach for Fabricating Janus and Patchy Shells, <u>Alexander Mikkelsen</u>, Zbigniew Rozynek, Paul Dommersnes, Jon Otto Fossum, talk given at 2013 MRS Fall Meeting & Exhibit, December 1 - 6, 2013, Hynes Convention Center, Boston, MA, Symposium WW: Self-Organization and Nanoscale Pattern Formation.
- 154. Orientational Order in a Glass of Charged Platelets with a Concentration Gradient, Elisabeth Lindbo Hansen, S. Jabbari-Farouji, H. Mauroy, T. S. Plivelic, D. Bonn, <u>J.O. Fossum</u>, poster presented at 2013 MRS Fall Meeting & Exhibit, December 1 - 6, 2013, Hynes Convention Center, Boston, MA, Symposium WW: Self-Organization and Nanoscale Pattern Formation
- 155. Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at Near-Ambient Conditions, Henrik Hemmen, Leander Michels, Zbigniew Rozynek, Karin Rustenberg, Tomas Plivelic, Jon Otto Fossum, poster presented at 2013 MRS Fall Meeting & Exhibit, December 1 - 6, 2013, Hynes Convention Center, Boston, MA, Symposium OO: Solid-State Chemistry of Inorganic Materials
- 156. Water Intercalation and Dynamics of Humidity Uptake by Meso-, and Nano-porous Clay, Leander Michels, Henrik Hemmen, Zbigniew Rozynek, Giovanni Grassi, Roosevelt Droppa, Geraldo José da Silva and Jon Otto Fossum, poster presented at International Soft Matter Conference, Sapienza Università di Roma, Italy, Sept. 15-1,9 2013
- 157. *New approach to fabricating Janus and Patchy colloidal shells*, Zbigniew Rozynek, Alexander Mikkelsen, Paul Dommersnes and Jon Otto Fossum, poster presented at International Soft Matter Conference, Sapienza Università di Roma, Italy, September 15-19, 2013
- 158. *Clay-based active eye pupil-like structure*, <u>Zbigniew Rozynek</u>, Paul Dommersnes, Alexander Mikkelsen, Rene Castberg and Jon Otto Fossum, invited talk presented at International Mini-Workshop on Multi-Component Soft and Complex Fluids, International Center for Condensed Matter Physics (ICCMP), University of Brasilia (UnB), Brasilia-DF, Brazil, July 15-16, 2013
- 159. Orientational order in a glass of charged platelets with a concentration gradient, <u>Elisabeth Lindbo</u> <u>Hansen</u>, Sara Jabbari-Farouji, Henrik Mauroy, Tomas S. Plivelic, Daniel Bonn, and Jon Otto Fossum, invited talk presented at International Mini-Workshop on Multi-Component Soft and Complex Fluids, International Center for Condensed Matter Physics (ICCMP), University of Brasilia (UnB), Brasilia-DF, Brazil, July 15-16, 2013
- 160. Active structuring of colloidal microbeads on liquid drops (and new approach to fabricating patchy shells), <u>Zbigniew Rozynek</u>, P. Dommersnes, A. Mikkelsen, R. Castberg and Jon Otto Fossum. Invited talk given at International Mini-Workshop on Complex Drops and Emulsions Pontifícia Universidade Católica do Rio de Janeiro, Room 106, Cardeal Leme Building, PUC-Rio, Brazil, July 12, 2013
- Swelling transition of a clay induced by heating, <u>E. L. Hansen</u>, H. Hemmen, D. M. Fonseca, C. Coutant,
   K. D. Knudsen, T. S. Plivelic, D. Bonn, J. O. Fossum, invited talk given at 15th International Clay
   Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 162. Dynamics of humidity uptake by meso-, and nano-porous clay, <u>L. Michels</u>, H. Hemmen, Z. Rozynek, R. Droppa, G. J. da Silva, J.O. Fossum, talk at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 163. *Ciproflaxin drug capture and delivery by laponite and fluorohectorite clays: preliminary studies,* A. Rivera, Z. Rozynek, <u>E. L. Hansen</u>, L. Michels, J. O. Fossum, E. Altshuler, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 164. An orientationally ordered Laponite glass, <u>E. L. Hansen</u>, T. S. Plivelic, J. O. Fossum, invited talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Self-organization in complex fluids of smectite clay, <u>Y. Meheust</u>, K. Parmar, D. M. Fonseca, H. Hemmen, K. D. Knudsen, K. J. Måløy, J. O. Fossum, invited talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 166. Intercalation and retention of carbon dioxide in synthetic fluorohectorite clay at near-ambient conditions, H. Hemmen, K. H. Rustenberg, <u>L. Michels</u>, Z. Rozynek, T. S. Plivelic, J. O. Fossum, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013

- 167. *Studies Ni-fluorohectorite clay combining the XRD and EXAFS synchrotron methods,* <u>L. Ribeiro</u>, L. Michels, M. S. P. Mundim, M. H. Sousa, J. O. Fossum, G. J. da Silva, K. C. Mundim, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 168. *Hendricks-Teller-types peaks in clay,* <u>G. Grassi</u>, L. E. Michels, R. Droppa Jr., J. O. Fossum, G. J. da Silva, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 169. Water intercalation in clay, <u>G. Grassi</u>, L. E. Michels, R. Droppa Jr., J. O. Fossum, G. J. da Silva, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 170. Synchrotron X-ray scattering studies in Cu-fluorohectorite, C. L. S. Fonsêca, <u>G. Grassi</u>, M. A. S. Altoé, <u>L. E. Michels</u>, R. Droppa Jr., J. O. Fossum, G. J. da Silva, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 171. Swelling clay dependent on certain physical parameters, M. A. S. Altoé, <u>G. Grassi, L. E. Michels</u>, R. Droppa Jr., J. O. Fossum, G. J. da Silva, poster 15th International Clay Conf. (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Clay stabilized Pickering emulsions and Janus particles: electro-coalescence of oil-clay droplets, <u>Z.</u> <u>Rozynek</u>, P. Dommersnes, R. Castberg, A. Mikkelsen, <u>J. O. Fossum</u>, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Supercritical CO2 in aerogels and clay materials studied by small angle neutron scattering, P. A. Sobas,
   K. D. Knudsen, G. Helgesen, A. T. Skjeltorp, H. Mauroy, <u>J. O. Fossum</u>, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Dynamic light scattering measurements of clay materials in liquid CO2: preliminary results, P. A. Sobas,
   K. D. Knudsen, G. Helgesen, A. T. Skjeltorp, K. J. Måløy, <u>Z. Rozynek, J. O. Fossum</u>, poster presented at
   15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Clay particle rotation and alignment in electric fields, R. Castberg, <u>Z. Rozynek, J. O. Fossum</u>, K. J. Måløy,
   P. Dommersnes, poster at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 176. Active structuring of clay colloidal armour on liquid drops, P. Dommersnes, <u>Z. Rozynek</u>, K. Kjerstad, R. Castberg, A. Mikkelsen, K. Hersvik, J. O. Fossum, invited talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Electric-field manipulation of clay particles: an overview, Z. Rozynek, P. Dommersnes, R. Castberg, <u>A. Mikkelsen</u>, H. Mauroy, K. D. Knudsen, J. O. Fossum, invited talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 178. Transistor and piezoelectric effects in graphene-clay heterostructures for use in memory storage, <u>L.</u> <u>Britnell</u>, T. Georgiou, A. Mishchenko, Y. Geliang, D. C. Elias, J. O. Fossum, A. K. Geim, K. S. Novoselov, invited talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 179. Mudslides of clayey soils, <u>Y. Meheust</u>, A. Khaldoun, P. Møller, A. Fall, E. L. Hansen, G. Wegdam, B. de Leeuw, J. O. Fossum, D. Bonn, talk at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Polypropylene/organoclay nanocomposites in electric fields, <u>Z. Rozynek</u>, S. M. L. Silva, H. Mauroy, E. de Azevedo, G. J. da Silva, J. O. Fossum, T. Plivelic, talk given at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 181. Phase segregation in PNIPAAM-laponite hydrogels: the effect of dissolved oxygen, H. Mauroy, <u>Z.</u> <u>Rozynek</u>, T. S. Plivelic, <u>J.O. Fossum</u>, G. Helgesen, K. D. Knudsen, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- Polystyrene-clay nanocomposites: the effect of clay surface charge, H. Mauroy, <u>E. L. Hansen</u>, Z. Rozynek, T. S. Plivelic, <u>J.O. Fossum</u>, G. Helgesen, K. D. Knudsen, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 183. In situ monitoring of local bulk water contents and orientational order in paraffin/clay composites, <u>Z.</u> <u>Rozynek</u>, R. Castberg, A. Mikkelsen, J. O. Fossum, poster presented at 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, July 7-11, 2013
- 184. *Hydration Transitions: High order analysis by synchrotron x-ray scattering,* <u>G. Grassi</u>, L. E. Michels, R. Droppa Jr, J. O. Fossum and G. J. da Silva, poster presented at Third annual Niels Bohr International

Academy workshop on ESS science: crossing space and time domains with SAS and QENS, NBI, Univ. Copenhagen, June 24- 28 2013

- 185. Water intercalation and dynamics of humidity uptake by meso-, and nano-porous clay, <u>L. E. Michels</u>, G. Grassi , H. Hemmen, Z. Rozynek, G. J. da Silva, J. O. Fossum, R. Droppa Jr, poster presented at Third annual Niels Bohr International Academy workshop on ESS science: crossing space and time domains with SAS and QENS, NBI, Univ. Copenhagen, June 24- 28 2013
- 186. Electric field nematic alignment of fluorohectorite clay particles in oligometric matrices, Zbigniew Rozynek, <u>Alexander Mikkelsen</u>, Rene Castberg & Jon Otto Fossum, poster presented at Third annual Niels Bohr International Academy workshop on ESS science: crossing space and time domains with SAS and QENS, NBI, Univ. Copenhagen, June 24- 28 2013
- 187. Synchrotron X-ray Scattering Studies in Cooper-Fluorohectorite, <u>Cyntia Fonseca</u>, Giovanne Grassi, Mario Altoe, Geraldo Jose da Silva, Leander Michels, Rossevelt Droppa Jr., J.O. Fossum, XXXVI Encontro Nacional de Fisica da Materia Condensada, Águas de Lindóia, SP, Brazil, 13 a 17 de maio de 2013
- 188. CO2 adsorption and intercalation in aerogels and clay materials studied by SANS, <u>Pawel A. Sobas</u>, Kenneth D. Knudsen, Geir Helgesen, Arne T. Skjeltorp, Henrik Mauroy, Georgios N. Kalantzopoulos, Jon Otto Fossum, poster presented at Nordsoft International workshop on Soft matter Physics and Biomembranes, Reykjavik, Iceland, May 21-24. 2013
- 189. A new approach to fabricating Janus and Patchy particles, <u>Zbigniew Rozynek</u>, Paul Dommersnes, Rene Castberg, Alexander Mikkelsen and Jon Otto Fossum poster presented at Nordsoft International workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, May 21-24. 2013
- 190. Structuring of colloidal particles on liquid drops, Paul Dommersnes, <u>Zbigniew Rozynek</u>, Alexander Mikkelsen, Rene Castberg, Knut Kjerstad, Kjetil Hersvik and Jon Otto Fossum invited talk at Nordsoft International workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, May 21-24. 2013
- 191. An orientationally ordered glass of soft colloidal platelets, <u>Elisabeth L. Hansen</u> and Jon Otto Fossum, invited talk at Nordsoft International workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, May 21-24. 2013
- 192. An orientationally ordered glass of soft colloidal platelets, <u>Elisabeth L. Hansen</u> and Jon Otto Fossum, invited talk at at 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013
- 193. *Structuring of colloidal particles on liquid drops*, <u>Z. Rozynek</u>, P. Dommersnes, A. Mikkelsen, R. Castberg, and J.O. Fossum, invited talk at 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013
- 194. A new approach to fabricating Janus and Patchy particles, Zbigniew Rozynek, Paul Dommersnes, Rene Castberg, <u>Alexander Mikkelsen</u> and Jon Otto Fossum, invited talk at 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013
- Supercritical CO2 in aerogels and clay materials studied by small angle neutron scattering, <u>P.A. Sobas</u>, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, H. Mauroy, J.O. Fossum, Soft Matter Confinement, Geilo School, March 11-21, 2013
- 196. Dynamic Light Scattering measurements of clay materials in lquid CO2: Preliminary results, <u>P.A. Sobas</u>, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, K.J. Måløy, Z. Rozynek, J.O. Fossum, Soft Matter Confinement, Geilo School, March 11-21, 2013
- 197. Dynamics of Humidity uptake by meso- and nano-porous clay (poster), <u>Michels L</u>., Hemmen H., Rozynek Z., Droppa R., da Silva G.J., Fossum J.O., Soft Matter Confinement, Geilo School, March 11-21, 2013
- 198. *Diffusion through layered clay monitored by sn<sup>°</sup>mall angle neutron scattering* (poster), <u>H. Mauroy</u>, K.D. Knudsen., Fossum J.O, Soft Matter Confinement, Geilo School, March 11-21, 2013
- 199. Humidity Intercalation Processes in Synthetic Nanosilicates by Synchrotron X-ray Scattering (poster), <u>Grassi G.</u>, Michels L., Droppa, R., da Silva G.J., Fossum J.O., Soft Matter Confinement, Geilo School, March 11-21, 2013

- 200. *Dynamics of Humidity in Iron Fluorohectorite* (poster), <u>Altoe M.A.</u>, Grassi G., Fonseca C.L.S, Michels L., Droppa, R., Fossum J.O., da Silva G.J., Soft Matter Confinement, Geilo School, March 11-21, 2013
- 201. Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at near-ambient Conditions (talk) (i), J.O. Fossum, H. Hemmen, T. Plivelic, K. Rustenberg, L. Michels, E. Johnsrud, <u>Z.</u> <u>Rozynek</u>, 10th Nordic Workshop on Scattering from Soft Matter, Niels Bohr Institute at Copenhagen University, January 17-18, 2013
- 202. *Transição do Regime de Hidratação da Níquel-Fluorohectorita por Difração de Raios X Síncrotron*, (talk) <u>Luciano Ribeiro</u>, Jeane Silveira de Oliveira, Maria S. P Mundim, Marcelo Henrique Sousa, Geraldo Jose da Silva, Jon Otto Fossum, Kleber Carlos Mundim, QUITEL 2012, Natal – RN, Brazil December 2-7, 2012
- 203. Active structuring of colloidal armour on liquid drops (talk) (i), P Dommersnes, <u>Z Rozynek</u>, K Kjerstad, R Castberg, A Mikkelsen, K Hersvik and J O Fossum, Mini-Workshop on Complex Flows and Turbulence, 6 a 7 de dezembro de 2012, Departamento de Física, Universidade Federal de Pernambuco, Recife, PE, Brazil
- 204. Electric Field Induced Colloidal Assemblies on Drop Interfaces (talk), Paul Dommersnes, Knut Kjerstad, Alexander Mikkelsen, Kjetil Hersvik, Rene Castberg, <u>Zbigniew Rozynek</u>, Jon Otto Fossum, 2012 MRS Fall Meeting & Exhibit, November 25 - 30, 2012, Hynes Convention Center, Boston, MA, Symposium U: Colloidal Crystals, Quasicrystals, Assemblies, Jammings, and Packings
- 205. Promoting Orientational Order in Soft Solids (poster) <u>Elisabeth Lindbo Hansen</u>, Henrik Hemmen, Paul Dommersnes, Jon Otto Fossum, 2012 MRS Fall Meeting & Exhibit, November 25 - 30, 2012, Hynes Convention Center, Boston, MA, SymposiumU: Colloidal Crystals, Quasicrystals, Assemblies, Jammings, and Packings
- 206. Water diffusion studies in layered synthetic nanosilicates studied by synchrotron X-ray scattering (poster) <u>Grassi, G.</u>, Michels, L. E., Hemmen, H., Droppa Jr, R., Da Silva, G. J. And Fossum, J. O., IV International Workshop on Layered Materials. UNICAMP; Campinas, Brasil, Nov. 26-28 2012
- 207. Dipolar Ordering of Clay Particles in various Carrier Fluids (talk), <u>Z. Rozynek</u>, H. Mauroy, R. C. Castberg, K. D. Knudsen, J. O. Fossum, MECC 2012, 6th Mid-European Clay Conference, Průhonice, Czech Republic, 4 9 September 2012
- 208. Intercalation Of Carbon Dioxide In A Smectite Clay (poster) Hemmen Henrik, Rolseth Erlend, Fonseca Davi, Lindbo Hansen Elisabeth, <u>Fossum Jon Otto</u>, Plivelic Tomas, Rustenberg Karin, 4th International Congress, Eurosoil 2012, Bari Italy, 2-6 July 2012
- 209. Evaporation Induced Order In Aqueous Soft Solid Phases Of Clays (poster) <u>Hansen Elisabeth Lindbo</u>, Hemmen Henrik, Dommersnes Paul, Fossum Jon Otto, 4th International Congress, Eurosoil 2012, Bari Italy, 2-6 July 2012
- 210. Soil clay oil suspensions subjetced to electric fields (poster), <u>Z. Rozynek</u>, T. Zacher, M. Caplovicová, M. Janek and J.O. Fossum, 4th International Congress, Eurosoil 2012, Bari Italy, 2-6 July 2012
- 211. Effects of moderate warming on the structure and rheology of a fluorohectorite clay in water (poster) <u>Hansen Elisabeth Lindbo</u>, Hemmen Henrik, Fonseca Davi De Miranda, Fossum Jon Otto, Coutant Christophe, Knudsen Kenneth Dahl, Plivelic Tomás, 4th International Congress, Eurosoil 2012, Bari Italy, 2-6 July 2012
- 212. Synchrotron X-Ray Scattering Studies of Soft Nanostructures In Fluorohectorite Clay (poster) <u>Fossum</u> Jon Otto, Hemmen Henrik, Lindbo Hansen Elisabeth, Rozynek Zbigniew, Fonseca Davi, D. Knudsen Kenneth, Meheust Yves, 4th International Congress, Eurosoil 2012, Bari Italy, 2-6 July 2012
- 213. *Clay-Oil drops in electric fields* (talk) <u>Paul Dommersnes</u>, Knut Kjerstad, Kjetil Hersvik, Alexander Mikkelsen, Rene Castberg, Zbigniew Rozynek, Jon Otto Fossum, International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, May 22-25, 2012
- 214. Soil Clay Oil Suspensions Subjected to Electric Field (poster) <u>Zbigniew Rozynek</u>, Tomáš Zacher, Marián Janek Mária Čaplovičová and J.O. Fossum, International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, May 22-25, 2012
- 215. *Electric field alignement of clay particles* (poster) <u>Pawel Sobas</u>, Kenneth D. Knudsen, Geir Helgesen, Arne Skjeltorp, Knut Jørgen Måløy, Jon Otto Fossum, International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, May 22-25, 2012

- 216. *Swelling transition of a clay induced by heating* (poster) <u>Elisabeth Lindbo Hansen</u>, H. Hemmen, D. M. Fonseca, C. Coutant, K. D. Knudsen, T. S. Plivelic, D. Bonn, J. O. Fossum, International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, May 22-25, 2012
- 217. Carbon dioxide intercalation in a clay at near-ambient conditions (poster) <u>Henrik Hemmen</u>, Erlend G. Rolseth<sup>,</sup> Karin Rustenberg, Davi M. Fonseca, Elisabeth L. Hansen, Jon Otto Fossum and Tomás S. Plivelic, International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, May 22-25, 2012
- 218. Electric field alignement of clay particles (poster) <u>Rene Castberg</u>, Zbigniew Rozynek, Knut Jørgen Måløy, Jon Otto Fossum, Eirik Flekkøy, Paul Dommersnes, International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, May 22-25, 2012
- 219. Dynamics of humidity uptake by meso-, and nano-porous synthetic clay Lithium- Fluorohectorite (talk) Leander Michels, Giovanni Grassi, Geraldo Jose da Silva, Henrik Hemmen, Jon Otto Fossum, Roosevelt Droppa Jr., XXXV Encontro Nacional de Física da Matéria Condensada - ENFMC 2012, Águas de Lindóia, SP, Brazil, 14 a 18 de maio de 2012
- 220. Synchrotron X-Ray Studies of Water Intercalation and Diffusion in Synthetic Clay Lithium-Fluorohectorite (poster) <u>Giovanni Grassi</u>, Leander Michels, Geraldo Jose da Silva, Henrik Hemmen, Jon Otto Fossum, Roosevelt Droopa Jr., XXXV Encontro Nacional de Física da Matéria Condensada - ENFMC 2012, Águas de Lindóia, SP, Brazil, 14 a 18 de maio de 2012
- 221. X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay (poster) H. Hemmen, <u>Y. Méheust</u>, L. R. Alme, and J. O. Fossum, Session HS8.3.4: The role of interfaces in flow and transport in porous media, European Geosciences Union General Assembly 2012, Vienna, Austria, 22 – 27 April 2012
- 222. *Clay-based composites for drug delivery: Preliminary studies* (poster) (i) <u>A. Rivera</u>, Z. Rozynek, E. Lindbo Hansen, E. Altshuler, J.O. Fossum, International Conference: New materials in the Age of Convergence, Havana, Cuba, March 12-16, 2012
- Clay-oil droplet suspensions in electric field (talk) (i) <u>Z. Rozynek</u>, J.O. Fossum, K.. Kjerstad, A. Mikkelsen, R. Castberg, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 224. *Clay-based composites for drug delivery: Preliminary studies* (poster) (i) <u>A. Rivera</u>, Z. Rozynek, E. Lindbo Hansen, E. Altshuler, J.O. Fossum, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 225. *Phase separations in PNIPA-Laponite Nanocomposites* (poster) (i) <u>Henrik Mauroy</u>, K.D. Knudsen, J.O. Fossum, Z. Rozynek, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 226. Self-organization from electrically polarized clay particles (talk) (i) <u>Z. Rozynek</u>, J.O. Fossum, K.D. Knudsen, B. Wang, Y. Meheust, R. Castberg, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 227. The effect of temperature on the rheology and structure of clay suspensions (poster) (i) E. Lindbo Hansen, H. Hemmen, D.M. Fonseca, C. Coutant, <u>J.O. Fossum</u>, K.D. Knudsen, T.S. Plivelic, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 228. Anisotropy in PS-clay nanocomposites (talk) (i) <u>Henrik Mauroy</u>, K.D. Knudsen, J.O. Fossum, Z. Rozynek, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 229. Carbon dioxide intercalation in Na-fluorohectorite clay at near-ambient conditions (talk, poster) (i), <u>Henrik Hemmen</u>, E. Rolseth, D. M. Fonseca, E.L. Hansen, J.O. Fossum, T. Plivelic, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012
- 230. Using a high-speed camera to study alignement of sodium fluorohectorite (talk, poster) (i) <u>Rene</u> <u>Castberg</u>, Zbigniew Rozynek, Knut Jørgen Måløy, J.O. Fossum, Eirik Flekkøy, MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, March 6-9, 2012

- 231. *Texture evolution of drying clay gel samples* (poster) (i) <u>Marcus B.L. Santos</u>, G.J. da Silva, Paulo R.G. Fernades, J.O. Fossum, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas PE, Brazil, Jan. 31 Feb. 3, 2012
- 232. Dynamics of humidity uptake by meso- and nano- porous synthetic clay Lithium-Fluorohectorite (poster) (i) <u>L.E. Michels</u>, H. Hemmen, G.J. da Silva, J.O. Fossum, R. Droppa Jr., G. Grassi, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, Jan. 31 – Feb. 3, 2012
- 233. *The diffusion of vapor inside the mesoporosity of a dry clay* (poster) (i) <u>H. Hemmen</u>, Y. Mehesut, L. R. Alme, J.O. Fossum, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas PE, Brazil, Jan. 31 Feb. 3, 2012
- 234. Nanostructural alterations and rheology of clay dispersions in response to heating (poster) E. Lindbo Hansen, H. Hemmen, D.M. Fonseca, C. Coutant, K.D. Knudsen, T.S. Plivelic, D. Bonn, <u>J.O. Fossum</u>, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, Jan. 31 – Feb. 3, 2012
- 235. Clay-based composites for drug delivery: Preliminary studies (poster) (i) A. Rivera, Z. Rozynek, E. Lindbo Hansen, <u>E. Altshuler</u>, J.O. Fossum, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas PE, Brazil, Jan. 31 Feb. 3, 2012
- 236. CO2 and porous media SANS (talk, poster) (i) <u>Pawel A. Sobas</u>, Kenneth D. Knudsen, Geir helgesen, Arne Skjeltorp, Jon Otto Fossum, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, Jan. 31 – Feb. 3, 2012
- 237. X-ray studies of Carbon Dioxide Intercalation in Na-fluorohectorite Clay at Near-Ambient Conditions (talk, poster) (i) <u>Henrik Hemmen</u>, Erlend G. Rolseth, Davi M. Fonseca, Elisabeth L. Hansen, Jon Otto Fossum, Tomas S. Plivelic, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, Jan. 31 – Feb. 3, 2012
- 238. Synthesis and Characterization of Polysterene-Clay nanocomposites (talk, poster) (i) <u>Henrik Mauroy</u>, Kenneth D. Knudsen, Geir Helgesen, Jon Otto Fossum, Zbigniew Rozynek, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, Jan. 31 – Feb. 3, 2012
- 239. Electro-hydrodynamic and electro-rheological effects in clay-oil droplets (talk) (i) <u>Paul Dommersnes</u>, Knut Kjerstad, Kjetil Hersvig, Alexander Mikkelsen, Zbigniew Rozynek, Jon Otto Fossum, 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, Jan. 31 – Feb. 3, 2012
- 240. On the Influence of Interlayer Water Intercalation on the Global Mesoporous Water Transport in a Clay: X-Ray Studies. (talk), <u>Henrik Hemmen</u>; Lars R. Alme; Jon Otto Fossum; Yves Meheust, Materials Research Society 2011 MRS Fall Meeting, Boston, USA, November 28 - December 2, 2011 Symposium RR6: Dynamics in Porous Media
- 241. Nanostructural Alterations and Rheological Aging of Clay Dispersions in Response to Heating. (poster), <u>Elisabeth L. Hansen</u>; Henrik Hemmen; Davi M. Fonseca; Christophe Coutant; Tomás Plivelic; Kenneth D. Knudsen; Jon Otto Fossum, Materials Research Society 2011 MRS Fall Meeting, Boston, USA, Novvember 28 - December 2, 2011, Symposium SS7: Properties and Processes at the Nanoscale
- 242. Controlled Deposition of Clay Nanoplatelets by Fluid Evaporation from Droplets. (poster), <u>Henrik Hemmen</u>; Karianne Austad; Elisabeth Lindbo Hansen; Davi Fonseca; Jon Otto Fossum Materials Research Society 2011 MRS Fall Meeting, Boston, USA, November 28 - December 2, 2011, Symposium EE9: Self Organization and Nanoscale Pattern Formation
- 243. SAXS-WAXS studies of temperature induced changes in the structure of saline clay suspensions (poster), <u>Henrik Hemmen</u>, Nils I Ringdal, E. Novais de Azevedo, Mario Engelsberg, Elisabeth Lindbo Hansen, Yves Méheust, Jon Otto Fossum, K. D. Knudsen, International Workshop on Complex Phenomena in Superconductors and Magnetic Systems, Øystese, Hardanger, Norway Aug.29–Sept. 2, 2011
- 244. X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay (talk), <u>Henrik Hemmen</u>, et.al. 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network, Århus, Denmark, June 28th July 1st, 2011

- 245. *Temperature induced structural alterations of colloidal clay suspensions* (talk), <u>Elisabeth Lindbo</u> <u>Hansen</u>, et.al. 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network, Århus, Denmark, June 28th – July 1st, 2011
- 246. *Experimental studies of structured organoclays in electric field* (talk), <u>Zbigniew Rozynek</u>, et.al., Biannual meeting of the Norwegian Physical Society, Oslo, Norway, June 20-22, 2011
- 247. *Electric field induced rotation of Clay particles* (poster), Zbigniew Rozynek, <u>Rene Castberg</u>, Jon Otto Fossum, Knut Jørgen Måløy, Eirik Grude Flekkøy, Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, April 4-14, 2011
- 248. Simultaneous XRD and EXAFS measurements of water diffusion in sinthetic Ni-Fluohectorite (poster) <u>L.E. Michels</u>, L. Ribeiro, M.S.P. Mundim, M. H. Sousa, J.O. Fossum, G.J. da Silva and K. C. Mundim Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, April 4-14 2011
- 249. Studies of water intercalation and diffusion in nanosilicates by means of XAFS technique (poster), <u>L.</u> <u>Ribeiro</u>, L.E. Michels, M.S.P. Mundim, M. H. Sousa, J.O. Fossum, G.J. da Silva and K. C. Mundim Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, April 4-14 2011
- 250. WAXS studies of Clay/Paraffin Composites (poster), <u>Z Rozynek</u>, R Castberg, A Mikkelsen, D Chernyshov, J O Fossum and K J Måløy, Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, April 4-14, 2011
- 251. SAXS-WAXS studies of temperature induced changes in the structure of saline clay suspensions (talk), <u>Elisabeth Lindbo Hansen</u>, Henrik Hemmen, Davi d.M. Fonseca, Kenneth D. Knudsen, Jon Otto Fossum,8th Nordic Workshop on Scattering from Soft Matter, IFE-Kjeller, Norway January 26-27, 2011
- 252. *Phase separations in PNIPA-Laponite Nanocomposites* (talk) , <u>Henrik Mauroy</u>, Zbiginiew Rozynek, Kenneth D. Knudsen, Jon Otto Fossum, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 253. The rheology of quick clays Implications for landslides of clayey soils (talk), Y. Méheust, A. Khaldoun, P. Møller, A. Fall, G. Wegdam, B. de Leeuw, J. O. Fossum, and D. Bonn, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 254. *Temperature induced changes in the structure of saline clay suspensions* (talk), <u>E. L. Hansen</u>, H. Hemmen, D. d. M. Fonseca, C. Coutant, K. D. Knudsen, T. Plivelic, J. O. Fossum, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 255. *X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay* (talk), <u>H. Hemmen</u>, L. R. Alme, J. O. Fossum, and Y. Meheust, Int. Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil Dec. 14-17, 2010
- 256. *Electric Field Induced Rotation of Clay Particles* (talk) , <u>Z Rozynek</u>, J O Fossum, R Castberg, K J Måløy and E G Flekkøy, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 257. Fluid imbibition in paper fibers: Precursor front (poster), <u>Eduardo N. de Azevedo</u>, Lars R. Alme, M. Engelsberg, Jon Otto Fossum and Paul Dommersnes, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 258. Colloidal platelet self-organization from solvent evaporation (poster), <u>E. L. Hansen</u>, , H. Hemmen, J. O. Fossum, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 259. Phase diagram of polydisperse Na-fluorohectorite-water suspensions: A synchrotron small-angle X-ray scattering study (poster), <u>Davi de Miranda Fonseca</u>, Yves Meheust, Kenneth D. Knudsen and Jon Otto Fossum, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 260. *The Isotropic-Nematic interfacde in suspensions of Na-fluorohectorite synthetic clay* (poster), <u>H.</u> <u>Hemmen</u>, N. I. Ringdal, E. N. De Azevedo, M. Engelsberg, E. L. Hansen, Y. Méheust, J. O. Fossum, and K.

D. Knudsen, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010

- 261. Diffusion through layered clay monitored by small angle neutron scattering (poster), <u>H. Mauroy</u>, K. D. Knudsen, J. O. Fossum, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 262. Electric Field Induced Structuring of Modified Na-fluorohectorite Clay Particles (poster), <u>Z Rozynek</u>, J O Fossum, B Wang and K D Knudsen, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 263. *Confined water molecules in layered structures* (poster), <u>Rômulo P. Tenório</u>, M. Engelsberg, Jon Otto Fossum and Geraldo J. da Silva, International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil December 14-17, 2010
- 264. CO2 interaction with porous structures: Use of Scattering methods (talk), <u>Kenneth D. Knudsen</u>, G. Helgesen, J.O. Fossum, A. Skjeltorp, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 265. Colloidal platelet self-organization from solvent evaporation (talk), <u>E. L. Hansen</u>, , H. Hemmen, J. O. Fossum, International Workshop on CO2 and Fluids in Nanoscience, Int. Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 266. X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay (talk), <u>H. Hemmen</u>, L. R. Alme, J. O. Fossum, and Y. Meheust, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 267. Electric Field Induced Structuring of Modified Na-fluorohectorite Clay Particles (talk), <u>Z Rozynek</u>, J O Fossum, B Wang and K D Knudsen, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 268. *Diffusion through layered clay monitored by small angle neutron scattering* (poster), <u>H. Mauroy</u>, K. D. Knudsen, J. O. Fossum, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 269. Electric Field Induced Rotation of Clay Particles (poster), <u>Z Rozynek</u>, J O Fossum, R Castberg, K J Måløy AND E G Flekkøy, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 270. Phase diagram of polydisperse Na-fluorohectorite-water suspensions: A synchrotron small-angle X-ray scattering study (poster), <u>Davi de Miranda Fonseca</u>, Y. Meheust, K. D. Knudsen and Jon Otto Fossum, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil Dec. 7-10, 2010
- 271. The Isotropic-Nematic interfacde in suspensions of Na-fluorohectorite synthetic clay (poster), <u>H. Hemmen</u>, N. I. Ringdal, E. N. De Azevedo, M. Engelsberg, E. L. Hansen, Y. Méheust, J. O. Fossum, and K. D. Knudsen, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasilia (UnB), Brasilia-DF, Brazil December 7-10, 2010
- 272. *Temperature-induced Positional Ordering in Colloidal Liquid Crystals* (talk), <u>Henrik Hemmen</u>, Elisabeth Lindbo Hansen, Davi de Miranda Fonseca, Christophe Coutant, Mats Sigstad and Jon Otto Fossum, Materials Research Society 2010 MRS Fall Meeting, Boston, USA, November 29 - December 3, 2010, Symposium L: Liquid-Crystal Materials--Beyond Displays
- 273. Orientational Ordering in Aqueous Clay Gels and/or Glasses (poster), <u>Elisabeth Lindbo Hansen</u>, Henrik Hemmen and Jon Otto Fossum, Materials Research Society 2010 MRS Fall Meeting, Boston, USA, November 29 - December 3, 2010, Symposium EE: Solid State Chemistry of Inorg. Mat. VIII
- 274. Intercalated Water in Synthetic Lithium-fluorhectorite Clay(poster), Romulo P. Tenorio, Mario Engelsberg, Jon O. Fossum and Geraldo J. da Silva, Materials Research Society 2010 MRS Fall Meeting,

Boston, USA, November 29 - December 3, 2010, Symposium EE: Solid State Chemistry of Inorganic Materials VIII

- 275. Electric-field Induced Alignment of Modified Na-fluorohectorite Clay Particles (poster), <u>Zbigniew</u> <u>Rozynek</u>, BaoXiang Wang and Jon Otto Fossum, Materials Research Society 2010 MRS Fall Meeting, Boston, USA, November 29 - December 3, 2010, Symposium EE: Solid State Chemistry of Inorganic Materials VIII
- 276. *Electric-field induced alignment of modified Na-fluorohectorite clay particles* (talk), <u>Rozynek Z</u>, Wang B and Fossum J O, 5th Mid-European Clay Conf. (MECC2010) . Budapest, Hungary, 25-29 August 2010
- 277. Fluid imbibition in paper fibers: Precursor front (poster), Eduardo N. de Azevedo, Lars R. Alme, Mario Engelsberg, Jon Otto Fossum, Paul Dommersnes, Henrik Hemmen, Gordon Research Conference on Flow and Transport in Permeable Media, July 10-16, 2010, Bates College, Lewiston, ME, USA
- 278. X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay (poster), <u>Henrik Hemmen</u>, Lars Ramstad Alme, Jon O. Fossum, Yves Méheust, Gordon Research Conf. on Flow and Transport in Permeable Media, July 10-16, 2010, Bates College, Lewiston, ME, USA
- 279. Volume Fraction Versus Order In Nematic Fluorohectorite Dispersions (poster), <u>E. L. Hansen</u>, H. Hemmen, J. O. Fossum, 2010-Trilateral Meeting on Clays (2010TMC-CSSJ-CMS). Seville, Spain, June 6-11, 2010
- 280. *Flow Induced Ordering In Na-Fluorohectorite Dispersion* (poster), <u>H. Hemmen</u>, E. L. Hansen, E. V. Blindheim and J. O. Fossum, 2010-Trilateral Meeting on Clays (2010TMC-CSSJ-CMS). Seville, Spain, June 6-11, 2010
- 281. Photothermal studies of hydration pro-cess in nanolayered synthetic silicate. (poster), Geraldo Jose da Silva, Marco Antonio Amato, Jon Otto Fossum, XXXIII Encontro Nacional de Física da Matéria Condensada (ENFMC) da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, de 10 a 14 de maio de 2010
- The Isotropic-Nematic Interface in Suspensions of Na-fluorohectorite Synthetic Clay. (talk), <u>H. Hemmen</u>, N. I. Ringdal, E. N. De Azevedo, M. Engelsberg, Elisabeth L. Hansen, Yves Méheust, Jon O. Fossum and Kenneth D. Knudsen, Seventh Nordic Workshop on Scattering from Soft Matter. Helsinki, Finland, January 27-28, 2010
- 283. X-ray Scattering Study of a Clay/Gelatine Hybrid Electrorheological Elastomer (poster), Baoxiang Wang, Zbigniew Rozynek, Tomas S. Plivelic and Jon Otto Fossum, Seventh Nordic Workshop on Scattering from Soft Matter, Helsinki, Finland, January 27-28, 2010
- 284. Wide Angle X-Ray Scattering Studies of Guided Assembled Organoclay Electro-Rheological Suspensions (talk), Baoxiang Wang, <u>Zbigniew Rozynek</u>, Tomas S. Plivelic and Jon Otto Fossum, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, November 30 - December 4, 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies, Paper number QQ5.10, Dec. 1, 2009
- 285. Rougness of Fracture Surfaces in a Model Nanosilicate Gel Determined from Magnetic Resonance Imaging (poster), Henrik Hemmen, Eduardo N. de Azevedo, Christian A. Nielsen, Knut Magnus, Ricardo E. de Souza, Mario Engelsberg and Jon Otto Fossum, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, November 30 - December 4, 2009, Symposium FF: Mechanical Behavior of Nanomaterials-Experiments and Modeling.
- 286. Fast Speed Camera Imaging and Synchrotron X-ray Studies of Dynamic Structuring from Nano-layered Clay Particles (poster), <u>Zbigniew J. Rozynek</u>, Jon O. Fossum, Baoxiang Wang, Rene Castberg and Knut J. Maloy, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, November 30 - December 4, 2009, Symposium MM: Ultrafast Processes in Materials Science
- 287. Structural Changes in Polymer/Clay Melted Nanocomposites Induced by Electric Field: Synchrotron Xray Studies of Structure Dynamics and Rheology (poster), Tomás S. Plivelic, Suédina M.L. Silva, Eduardo N. de Azevedo, Geraldo J. da Silva, <u>Zbigniew Rozynek</u>, Baoxiang Wang and Jon Otto Fossum, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, November 30 - December 4, 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies
- 288. X-ray Scattering Study of a Clay/Gelatine Hybrid Electrorheological Elastomer (poster), Baoxiang Wang, Zbigniew Rozynek, Tomas S. Plivelic and Jon Otto Fossum, Materials Research Society 2009 MRS Fall

Meeting, Boston, USA, November 30 - December 4, 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies

- 289. Highly Ordered Nematic Phases and Emerging Positional Ordering of Nanosized Clay Platelets in Water (poster), <u>Elisabeth Lindbo Hansen</u>, Nils Ivar Ringdal, Bård Martin Kjelling, Henrik Hemmen, Jon Otto Fossum, Eduardo Novais de Azevedo, Mario Engelsberg, Yves Méheust, Chan Kim, Shashidhara Marathe, In Wha Cho, Do Young Noh, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, November 30 - December 4, 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies
- 290. Electric field manipulation of polymer nanocomposite morphologies (poster), <u>Tomás S. Plivelic</u>, Zbigniew Rozynek, Suédina M.L. Silva, Baoxiang Wang, E. N. de Azevedo, Geraldo J. da Silva, and Jon Otto Fossum, Maxlab 22nd Annual User Meeting, Scandic Star, Lund, Sweden, Nov. 2- 3, 2009
- 291. Magnetic field effects on liquid crystalline phases in the synthetic clay Na-Fluorohectorite studied by synchrotron SAXS (poster), <u>Elisabeth Lindbo Hansen</u>, Henrik Hemmen, Jon Otto Fossum, SAS2009, XIV International Conference on Small-Angle Scattering, Oxford, UK, Sept. 13-18, 2009
- 292. Electric field manipulation of polymer nanocomposite morphologies (poster), <u>Tomás S. Plivelic</u>, Zbigniew Rozynek, Suédina M.L. Silva, Bao-Xiang Wang, Eduardo N. de Azevedo, Geraldo J. da Silva and Jon Otto Fossum, SAS 2009, XIV International Conference on Small-Angle Scattering, Oxford, UK, Sept. 13-18, 2009
- 293. SAXS Studies of Highly Ordered Nematic Phases in Aqeous Dispersions of Sodium-Fluorohectorite Nanodiscs (poster), <u>Elisabeth Lindbo Hansen</u>, Nils Ivar Ringdal, Bård Martin Kjelling, Henrik Hemmen, Jon Otto Fossum, Eduardo Novais de Azevedo, Mario Engelsberg, Yves Méheust, Chan Kim, Shashidhara Marathe, In Wha Cho, Do Young Noh SAS2009, XIV International Conference on Small-Angle Scattering, Oxford, UK, Sept. 13-18, 2009
- 294. Small Angle X-ray Scattering Studies of Double Responsive Co Doped TiOx Nanorods (talk), <u>Baoxiang</u> <u>Wang</u>, Zbigniew Rozynek, Henrik Hemmen, Elisabeth Lindbo Hansen and Jon Otto Fossum, ChinaNANO 2009, Beijing, China, Sept. 1-3, 2009
- 295. Electrorheological Properties of Organically Modified Nanolayered Laponite: Influence of Intercalation: Adsorption and Wettability (talk), <u>Baoxiang Wang</u>, Min Zhou, Zbigniew Rozynek and Jon Otto Fossum, 2nd International Conference on Smart Materials and Nanotechnology in Engineering, Weihai, China, 8-11 July 2009
- 296. Structural Changes in Polymer/Clay Melted Nanocomposites Induced by Electric Fields(poster), Tomás S. Plivelic, Suédina M.L. Silva, <u>Zbigniew Rozynek</u>, BaoxiangWang, Eduardo N. De Azevedo, Geraldo J. da silva, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009 Session NM7: Polymer-clay nanocomposites: preparation techniques and theoretical formulations, 1830-2000 Sunday 14 June 2009
- 297. Wide Angle Scattering Study of a Clay/Gelatin Electrorheological Elastomer(poster), <u>Baoxiang Wang</u>, Zbigniew Rozynek, Min Zhou, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM7: Polymer-clay nanocomposites: preparation techniques and theoretical formulations 1830-2000 Sunday 14 June 2009
- 298. *Quickclay and Landslides of Clayey Soils* (talk), Asmae Khaldoun, Peder Moller, Gerard Wegdam, Bert De Leeuw, Yves Méheust, Jon Otto Fossum, <u>Daniel Bonn,</u> 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session GG5: Clays in Geological Processes,920-940 Tuesday 16 June 2009
- 299. Electrorheological Properties of Organically Modified Laponite Intercalation: Adsorption and Wettability (talk), <u>Baoxiang Wang</u>, Min Zhou, Zbigniew Rozynek, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session CE4: Colloids & Rheology, 1210-1230 Tuesday 16 June 2009
- 300. Humidity Transport in Quasi One-Dimensional Na- Fluorohectorite Powders (poster), Lars Ramstad Alme, Yves Méheust, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20. 2009, Session HE5: Moisture transport through clay, 1830-2000 Wednesday 17 June 2009
- 301. NMR Spectroscopy studies of Water Intercalation in Na-fluorohectorite (talk), Rômulo P. Tenório, Lars Ramstad Alme, <u>Mario Engelsberg</u>, Jon Otto Fossum, Fernando Hallwass, 14th International Clay

Conference, Castellaneta M., Italy, June 14-20, 2009, Session UM3: General topics, 1500-1520 Thursday 18 June 2009

- 302. Roughness of Fractures in Laponite Gels Determined from Magnetic Resonance Imaging (talk), <u>Henrik Hemmen</u>, Eduardo Novais De Azevedo, Christian A. Nielsen, Knut Magnus Ricardo E. De Souza, Mario Engelsberg, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20. 2009, Session CE5: Desiccation and Fracture in Clay 1750-1810 Thursday 18 June 2009
- 303. Phase Diagram of Polydisperse Na-fluorohectorite-Water Suspensions: A Synchrotron Small Angle X-Ray Scattering Study (poster), Davi De Miranda Fonseca, Yves Méheust, Jon Otto Fossum, Kenneth Dahl Knudsen, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro, 1830-2000 Thursday 18 June 2009
- 304. Electrorheological Behaviour of Nematically Phase Separated Na-Fluorohectorite (poster), <u>Baoxiang</u> <u>Wang</u>, Zbigniew Rozynek, Henrik Hemmen, Elisabeth Lindbo Hansen, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro, 1830-2000 Thursday 18 June 2009
- 305. Self-Assembly and Dynamics of Clay Platelets in a Magnetic Field (talk), Eduardo N. De Azevedo, <u>Mario Engelsberg</u>, Jon Otto Fossum, Ricardo E. de Souza, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro, 850-920 Friday 19 June 2009
- 306. Isotropic-Nematic Interfaces in Suspensions of Na-Fluorohectorite Synthetic Clay-Order, Orientation and Magnetic Field Response (talk), <u>Henrik Hemmen</u>, Nils Ringdal, Eduardo Novais De Azevedo, Elisabeth Lindbo, Hansen Matteus, Häger Yves Méheust, Jon Otto Fossum, Mario Engelsberg, Kenneth D. Knudsen, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro, 1020-1040 Friday 19 June 2009
- 307. Highly Ordered Nematic Phases and Emerging Positional Ordering in Aqueous Dispersions of Na-Fluorohectorite (talk), <u>Elisabeth Lindbo Hansen</u>, Nils Ivar Ringdal, Bård Martin Kjelling, Henrik Hemmen, Jon Otto Fossum, Eduardo Novais De Azevedo, Mario Engelsberg, Yves Méheust, Chan Kim, Shashidhara Marathe, In Wha Cho, Do Young Noh, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro, 1230-1250 Friday 19 June 2009
- 308. Wide Angle X-Ray Scattering Studies of Guided Assembled Organoclay Electrorheological Suspensions (talk), <u>Baoxiang Wang</u>, Zbigniew Rozynek, Min Zhou, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session CE7: Modified Clays & New Applications 1430-1500 Friday 19 June 2009
- 309. Dynamic Column Formatiom of Na-Fluorohectorite Clay Particles: Wide Angle X-Ray Scattering and Rheological Studies (talk), <u>Zbigniew Rozynek</u>, Baoxiang Wang, Min Zhou, Jon Otto Fossum, 14th International Clay Conference, Castellaneta M., Italy, June 14-20, 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro, 1520-1540 Friday 19 June 2009
- 310. Self-similarity structures in clay gel samples induced by a controlable aging effect, <u>Marcus B. L. Santos</u>, Geraldo J. da Silva, Marcelo H. Souza, Paulo R.G. Fernandes, Jon Otto Fossum, Encontro Nacional de Física da Matéria Condensada (ENFMC) da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, de 11 (segunda-feira) a 15 (sexta-feira) de maio de 2009
- 311. Room Temperature studies of the relative humidity in synthetic clays by means of synchrotron XRD technique(poster), Leander Eduard Michels, Maria Suely Pedrosa Mundim, <u>Geraldo Jose da Silva</u>, Marcelo Henrique de Sousa, Luciano Ribeiro, Jon Otto Fossum, Encontro Nacional de Física da Matéria Condensada (ENFMC)da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, de 11 (segunda-feira) a 15 (sexta-feira) de maio de 2009
- 312. Studies of water diffusion and intercalation in synthetic nanosilicates by means of EXAFS technique (poster), Felipe Gomes Lacerda, Maria Suely Pedrosa Mundim, <u>Geraldo Jose da Silva</u>, Marcelo Henrique de Sousa, Jon Otto Fossum, Encontro Nacional de Física da Matéria Condensada (ENFMC) da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, de 11 (segunda-feira) a 15 (sexta-feira) de maio de 2009

- 313. WAXS and Rheological Studies of Dynamic Column Formation in Na-FLHC Clay Particles (invited talk), <u>Z</u> <u>Rozynek</u>, B Wang, M Zhou, J O Fossum, 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, January 28&29 2009
- 314. Structural changes in polymer/clay melted nanocomposites induced by electric fields (poster), Tomás S. Plivelic, Suédina M.L. Silva, Zbigniew Rozynek, Bao-Xiang Wang, Eduardo N. de Azevedo, Geraldo J.da Silva,Jon Otto Fossum, 6thNordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, January 28&29 2009
- 315. Isotropic-Nematic Interfaces In Suspensions of Na-Fluorohectorite Synthetic Clay(poster), <u>Henrik</u> <u>Hemmen</u>, Nils I Ringdal, Eduardo N. De Azevedo, Elisabeth Lindbo Hansen, M. Häger, Yves Méheust, Jon Otto Fossum, Mario Engelsberg, Kenneth D. Knudsen, 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, January 28&29 2009
- 316. Liquid Crystalline Ordering In Gravitationally Settled And Evaporating Aqueous Dispersions Of Clay Nanoplatelets Studied By Small Angle X-Ray Scattering (poster), <u>Elisabeth Lindbo Hansen</u>, Eduardo N. De Azevedo, Yves Méheust, Henrik Hemmen, Bård M. Kjelling, Jon Otto Fossum, Do Young Noh, Chan Kim, Shashidhara Marathe, In Wha Cho, Mario Engelsberg, 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, January 28&29 2009
- 317. Small Angle X-ray Scattering Studies of Double Responsive Co Doping TiOx Nanorods(poster), <u>Baoxiang</u> <u>Wang</u>, Zbigniew Rozynek, Henrik Hemmen, Elisabeth Lindbo Hansen and Jon Otto Fossum, 6th Nordic Workshop on Scattering from Soft Matter, Univ. Århus, Denmark, January 28&29 2009
- 318. *Guided Self-assembly of Nanostructured Titanium Oxide* (invited talk) <u>Baoxiang Wang</u>, Min Zhou, Zbigniew Rozynek and Jon Otto Fossum, Materials Research Society 2008 MRS Fall Meeting Dec 1-5 2008, Boston, MA, USA, Symposium V: Materials, Devices, and Characterization for Smart Systems, Paper number V3.5, December 2 2008
- 319. The Isotropic-Nematic Interface in Suspensions of Na-Fluorohectorite Synthetic Clay (poster), <u>Henrik Hemmen</u>, N.I. Ringdal, E.N de Azevedo, E.L. Hansen, Y. Méheust, J.O. Fossum, M. Engelsberg, K.D. Knudsen, Materials Research Society 2008 MRS Fall Meeting Dec 1-5, 2008, Boston, MA, USA, Symposium CC: Design, Fabrication, and Self Assembly of -Patchy- and Anisometric Particles
- 320. Dynamic Chain-formation of Na-Fluorohectorite Clay Particles: Wide Angle X-ray Scattering and Electrorheometry results (talk), <u>Rozynek, Z</u>.; Wang, B.; Zhou, M.; Fossum, J.O., 11th conference on Electrorheological Fluids and Magnetorheological Suspensions, Dresden, Germany August 25-29, 2008
- Wide Angle Scattering Study of Clay/gelatin Electrorheological Elastomer (poster), <u>Wang, B</u>.; Rozynek,
   Z.; Zhou, M.; Fossum, J.O., 11th conference on Electrorheological Fluids and Magnetorheological Suspensions, Dresden, Germany on August 25-29, 2008
- 322. *Guided self-assembly of nanostructured titanium oxide* (talk), <u>B. Wang</u>, M. Zhou, Z. Rozynek, J.O. Fossum The International MRS 2008 Conference Beijing AAA Satellite Meeting on Advanced Technologies for Advanced Characterizations of Advanced Materials, Institute of Physics Chinese Academy of Sciences, Beijing, China June 15-18, 2008
- 323. Self-assembly of Silver Oxide Nanoparticles to Micro-spindles, Micro-ricesandMicro-dendrites (poster), <u>M. Zhou</u>; B. Wang; Z. Rozynek; J. Fossum, Session F 19: Functional Ceramics, Materials Research Society (MRS) International Materials Research Conf., Chongqing, China, June 9 - 12, 2008
- 324. *Guided Selfassembly of Titanium Oxide Nanowires and Nanorods* (talk), <u>B. Wang</u>, M. Zhou, Z. Rozynek, J.O. Fossum, Nanotech 2008, Boston, USA, June 1-5, 2008
- 325. *Stimulated Self-assembly from Clay Nanoplatelets* (poster), <u>J.O. Fossum</u> et.al., Nanotech 2008, Boston, USA, June 1-5, 2008
- 326. *Mesoscopic changes of a model clay soil due to the microscopic swelling of its crystallites* (talk), <u>Meheust, Y</u>.; Fossum, J.O.; Knudsen, K.D.; Maloy, K.J.; Helgesen, G., European Geosciences Union, General Assembly 2008, Vienna, Austria, 13-18 April 2008
- 327. *Transport of water in a weakly-hydrated model clay soil* (poster), L.R. Alme, J.O. Fossum; <u>Y. Meheust</u>, European Geosciences Union, General Assembly 2008, Vienna, Austria, 13-18 April 2008
- 328. Wide Angle Scattering Study of Organic Modified Fluorohectorite Electrorheological Suspensions, <u>Baoxiang Wang</u>, Zbigniew Rozynek, Min Zhou, Jon Otto Fossum, 5th Nordic Workshop on Scattering from Soft Matter at NTNU in Trondheim, Norway, February 6&7 2008

- 329. Wide Angle Scattering Studies of Dynamic Chain Formation in Na-FLHC (poster), <u>Zbigniew Rozynek</u>, Baoxiang Wang, Jon Otto Fossum, 5th Nordic Workshop on Scattering from Soft Matter at NTNU in Trondheim, Norway, February 6&7 2008
- 330. Utilizing WAXS to characterize the orientation distribution of clay assemblies application to electrorheological suspensions and weakly-hydrated samples (talk), <u>Y. Méheust</u>, J.O. Fossum, K.D. Knudsen, K.P.S. Pamar, K.J. Måløy, G. Helgesen, 5th Nordic Workshop on Scattering from Soft Matter at NTNU in Trondheim, Norway, February 6&7, 2008
- 331. X-Ray Studies of Intercalation and Diffusion in Nanosilicates: a relationship between Experiment and Simulation (poster), <u>Geraldo Jose da Silva</u>, Luciano Ribeiro, Marcelo Henrique Sousa, Jon Otto Fossum, Maria Suely Pedrosa Mundim, Kleber Carlos Mundim, VI Encontro da SBPMat (Sociedade Brasileira de Pesquisa em Materiais), Natal-RN, Brasil, 28 de outubro a 1° de novembro de 2007
- 332. Small angle scattering and AFM study of organic modified laponite nanoparticles (poster), <u>Wang, B. X.</u>; Zhou, M. and Fossum, J.O., Veeco Scandinavian Conference & Users Meeting: Developments in Atomic Force Microscopy for advanced imaging techniques At Royal Institute of Technology (KTH), Department of Surface Chemistry, Stockholm, Sweden, 24th&25th October 2007
- 333. Geometry and Dynamics of Adsorbed Water in Na-Fluorohectorite Clay Hydrates (poster), Romulo P. Tenorio, Lars Ramstad Alme, <u>Mario Engelsberg</u>, Jon Otto Fossum and Fernando Hallwass, EUROMAR Magnetic Resonance Conference, Tarragona, Spain, July 1-6, 2007
- 334. *Evaporating droplets of nanoparticle suspensions* (talk), <u>Ahmed Gmira</u>, Hege S. Bjørnsen, Paul Dommersnes and Jon Otto Fossum, The COMPLEX conference, Bergen, Norway, June 8, 2007
- 335. *An electrorheological study of clay nanoparticles suspendend in oil* (poster), Børge Schelderupsen and <u>Jon Otto Fossum</u>, Research Council of Norway Nanomat Conference, Bergen, Norway, 5-7 June, 2007
- 336. *Guided self-assembly of nanoparticles in electric fields: Nanostructured electrorheology* (poster), Helene Rødal, Svein Åsmund Slungård, Ahmed Gmira and <u>Jon Otto Fossum</u>, Research Council of Norway Nanomat Conference, Bergen, Norway, 5-7 June 2007
- 337. *Electric Polarization and Chain Formation of Nano-Layered Particles* (poster), <u>J.O. Fossum</u>, Y. Méheust, K.P.S. Parmar, K.D. Knudsen, K.J. Måløy and D.d.M. Fonseca, Research Council of Norway Nanomat Conference, Bergen, Norway, 5-7 June, 2007
- 338. Temperature investigations of water diffusion in synthetic nano-silicates by means of DXAS (talk), <u>G.J.</u> <u>da Silva</u>, Luciano Ribeiro, M.S.P. Mundim, J.O. Fossum, K.C. Mundim, Reunião anual de usuários do LNLS– Campinas – SP. Brasil, 20-21 February 2007
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