

Curriculum Vitae

Przemyslaw B. KOWALCZUK (Pshem)

E: pshem.kowalczyk@ntnu.no

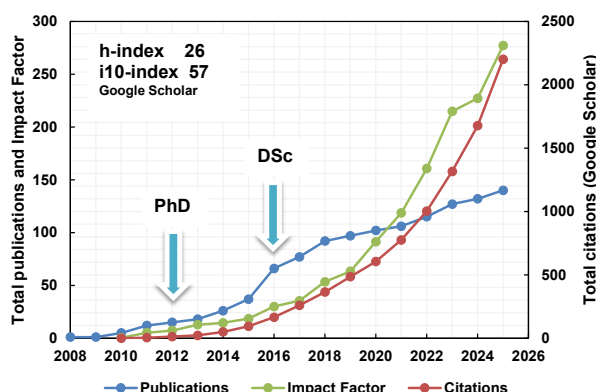
<https://www.ntnu.edu/employees/pshem.kowalczyk>

ORCID: 0000-0002-1432-030X; ResercherID: B-6043-2012

T: +47 93031854



I am the (co-)author of more than 100 publications in peer-reviewed international scientific journals, conference proceedings, invited book chapters, and scientific/industrial reports. My research has primarily focused on mineral processing and extractive metallurgy, with particular emphasis on the processing of marine (deep-sea) minerals, rare earth elements (REE), and secondary resources. The results of my innovative and interdisciplinary work have been published in high-impact journals across the fields of mineral processing, chemistry, engineering, and chemical engineering. In recognition of my scientific contributions, I have received numerous awards, including a prestigious fellowship for the Best Young Researchers from the Polish Ministry of Science and Higher Education (2014), and two START fellowships from the Foundation for Polish Science (FNP) in 2013 and 2014. In 2016, I was awarded the degree of Doctor of Science (DSc, habilitation) for my significant contributions to the scientific literature. In 2017, I was recognized as a “[Rising Star](#)” in mineral processing and metallurgy by Minerals Engineering International (MEI Online), the leading global platform for the field. I have also been appointed as an honorary collaborator by the Faculty of Applied Science at the University of Liège, Belgium, for the academic years 2019–2026. In 2024, I was selected for the Outstanding Academic Fellows Programme (OAFP) at NTNU. Additionally, I have been recognized as one of the world’s top 2% most-cited scientists, reflecting the impact and relevance of my research on a global scale.



Education

Oct 2016

DSc (habilitation), Mining & Geological Engineering
Wroclaw University of Science and Technology, Poland
Faculty of Geoengineering, Mining and Geology
title: *Physicochemical aspects of flotation of naturally hydrophobic substances*

May 2012

PhD (Hons.), Mining & Geological Engineering
specialization: *materials science, minerals engineering, physicochemistry of surfaces*
Wroclaw University of Technology, Poland
Faculty of Geoengineering, Mining and Geology
thesis: *Theoretical and experimental determination of the maximum size of floating particles in different flotation cells*
Supervisor: Prof. Jan Drzymala

May 2008

MSc, Materials Engineering
specialization: *chemical metallurgy and corrosion of metals*
Wroclaw University of Technology, Poland
Faculty of Fundamental Problems of Technology
thesis: *Chemical and mineralogical changes in non-oxidative and atmospheric leaching of copper ore shale fraction*
Supervisor: Prof. Tomasz Chmielewski

Research experience	
Oct 2025–now	Chief Technology Officer (CTO) Lithium367, Norway
Sep 2021–now	Professor in minerals engineering NTNU Norwegian University of Science and Technology, Norway Department of Geoscience and Petroleum
June 2021–June 2025	Guest Professor Central South University, China School of Minerals Processing & Bioengineering
Mar 2021– Aug 2021	Adjunct Associate Professor NTNU Norwegian University of Science and Technology, Norway Department of Geoscience and Petroleum
Jan 2021–Aug 2021	Deputy Head of Department of Analytical Chemistry and Chemical Metallurgy Wroclaw University of Science and Technology, Poland
Oct 2020–Aug 2021	Associate Professor Wroclaw University of Science and Technology, Poland Department of Analytical Chemistry and Chemical Metallurgy
Mar 2017–Feb 2021	Postdoctoral Researcher in mineral processing NTNU Norwegian University of Science and Technology, Norway Department of Geoscience and Petroleum
Oct 2018–Dec 2018	Guest Lecturer/Researcher for the course Mineral Processing (EMerald Master Programme) University of Liege, Belgium Faculty of Applied Science
Nov 2016–Feb 2019	Associate Professor in minerals engineering and materials science Wroclaw University of Science and Technology, Poland Faculty of Geoengineering, Mining and Geology
Nov 2015–Oct 2016	Deputy Head of Department of Mineral Processing Wroclaw University of Science and Technology, Poland Faculty of Geoengineering, Mining and Geology
Oct 2012–Oct 2016	Assistant Professor in minerals engineering and materials science Wroclaw University of Science and Technology, Poland Division of Mineral Processing
Oct 2013–Dec 2013	Visiting Scholar Stanford University, USA Stanford Center for Professional Development
Feb 2012–Sep 2012	Research Assistant University of Exeter, UK Camborne School of Mines
Oct 2008–Jan 2012	Academic Teaching Wroclaw University of Technology, Poland Faculty of Geoengineering, Mining and Geology
Feb 2008–Sep 2008	Chemist Wroclaw University of Technology, Poland Institute of Mining Engineering
Jun 2007–Oct 2007	Laboratory Technician Wroclaw University of Technology, Poland Faculty of Chemistry
Projects	
Sep 2023– Sep 2027	<i>HolE-LIB – Developing a Holistic Ecosystem for Sustainable Repurposing and/or Recycling of Lithium-ion Batteries (LIBs) in Norway and the EU</i> , funded by NTNU Interdisciplinary Sustainable, PhD supervisor
Jul 2023– Jul 2026	<i>Development of smart collectors for mineral and metal extraction</i> , PhD funded by NTNU Faculty of Engineering, PhD supervisor
Jun 2023– Dec 2026	<i>REEsilience - Sustainable production of Rare Earth Elements and other products from the Fen Carbonatite Complex</i> , co-funded by The Research Council of Norway, Project leader at NTNU, Researcher supervisor

Feb 2023– Dec 2025	EMINENT - Energy MINerals for the NETzero Transition, co-funded by The Research Council of Norway, Project leader at NTNU, PostDoc supervisor
Sep 2022– Dec 2025	RareGreen - Sustainable processing methods for rare earth elements, EIT Raw Materials, funded by European Union, Project leader at NTNU, PhD supervisor
Jan 2022– Dec 2025	Askepott - Utilization of the value creation potential in fly ash and waste acid, IPN, funded by The Research Council of Norway, WP Leader, PostDoc supervisor, PhD co-supervisor
Jun 2021– Dec 2025	HARARE - Hydrogen as the reducing agent in the recovery of metals and minerals from metallurgical waste, Horizon2020, funded by European Union, Tasks Leader, PostDoc supervisor, PhD co-supervisor
Jan 2021– Mar 2024	RFC-upscaling - New Reflux flotation cell technology upscaling for ore flotation, EIT Raw Materials, funded by European Union, Project leader at NTNU, PhD supervisor
Jan 2020– Dec 2022	DSM-School - EIT International Summer School "From Dredging to Deep-Sea Mining", EIT Raw Materials, funded by European Union, Project leader at NTNU
Jan 2018– Mar 2021	CEE SIMP - Doctoral course for Circular Economy Entrepreneurship in System Integrated Metals Processing, funded by KIC Raw Materials, Project leader at NTNU
Mar 2017– Feb 2019	MarMine - Exploitation technologies for marine minerals on the extended Norwegian continental shelf, financed by the Research Council of Norway, Co-investigator (postdoctoral researcher at NTNU)
Jul 2013–Dec 2016	The mechanism of formation and rupture of the three-phase contact in different flotation devices, financed by Polish National Science Centre, Principal investigator
May 2011–May 2012	Theoretical and experimental determination of maximum size of floating particles in different flotation cells, financed by Polish National Science Centre, Co-investigator (PhD grant)
Jan 2010–Dec 2013	Hydrometallurgical technology of copper sub-products and concentrate treatment, financed by Polish National Centre for Research and Development, Co-investigator
Jun 2007–Oct 2007	Search for a sustainable way of exploiting, black shale ores using biotechnologies Project Bioshale (European project contract NMP2-CT-2004 505710), financed by European Commission under the Sixth Framework Programme for Research and Development, Co-investigator

Awards & prizes

2024-2028	Award: Outstanding Academic Fellows Programme (OAFP), NTNU, Norway
Jul 2021	Award: Primus, Wroclaw University of Science and Technology, Poland
2019-2026	Honorary collaborator for the academic years of 2019-2026, University of Liege, Belgium
Sep 2016	Doctoral Dissertation Award, Wroclaw University of Science and Technology, Poland
Sep 2016	Award: Rector of the Wroclaw University of Science and Technology, Poland
Oct 2014– Sep 2017	Fellowship for the Best Young Researchers financed by the Polish Ministry of Science and Higher Education, Poland
Apr 2014	Fellowship for the best young researchers START 2014 financed by the Foundation of Polish Science (FNP)
Oct 2013	Award: Rector of the Wroclaw University of Technology, Poland
Sep 2013	Award: The best poster, Mineral Engineering Conference MEC2013, September 16-19, 2013, Swieradow-Zdroj
Jun 2013–Dec 2016	Grant: Polish Research Grant SONATA "The mechanism of formation and rupture of the three-phase contact in different flotation devices" financed by the National Science Centre
Apr 2013	Fellowship for the best young researchers START 2013 financed by the Foundation of Polish Science (FNP)
Oct 2012– July 2015	Fellowships co-financed by the European Union within the European Social Fund, Młoda Kadra 2015 plus
Oct 2011	Award: Rector of the Wroclaw University of Technology, Poland
May 2011	Award: The best presentation on the XI th PhD Students and Young Researchers Scientific Conference, Interdisciplinary Topics in Mining and Geology, May 18-21, 2011, Szklarska Poreba
May 2011–May 2012	Grant: Polish Research Grant "Theoretical and experimental determination of maximum size of floating particles in different flotation cells" financed by the National Science Centre
Oct 2010–Sep 2011	Fellowships co-financed by the European Union within the European Social Fund, Młoda Kadra 2015

Skills & Activities

Membership	Scientific Committee of the <i>III Polish Mining Congress</i> , September 14-16, 2015, Wrocław, Poland
	Scientific Committee of <i>Mineral Engineering Conference MEC</i> , Poland (2013–until now)
	Advisory Committee of <i>2nd International Electronic Conference on Mineral Science</i> , sponsored by Minerals MDPI, March 1-15, 2021.
	Scientific Committee of <i>International Mineral Processing and Recycling Conference (IMPRC)</i> , Serbia (2019-until now)
	Scientific Committee of the <i>Conference of PhD Students and Young Scientists</i> , Poland (2019-now)
	Scientific Committee of the <i>1st International Symposium on Earth and Geosciences, ISEAG 2020</i> , Istanbul, Turkey
	<i>Top500 Innovators</i> (since 2013)
	<i>Polish Mineral Engineering Society</i> (since 2010)
	<i>Mineral Engineering Conference Council (MEC Council)</i> (2015-2018)
	<i>Society for Mining, Metallurgy & Exploration (SME)</i> (since 2022)
Reviewer	<i>International Advisory Committee, International Mineral Processing Council (IMPC)</i> (since 2021)
	Outstanding and recognized reviewer of many journals
	Scientific and development grants: National Centre for Research and Development (NCBiR), Poland; National Science Centre, Poland; Foundation of Polish Science, Poland; National Commission for Scientific and Technological Research, Chile; Mitacs Accelerate, Canada; Natural Sciences and Engineering Research Council (NSERC), Canada
	Tenure Review Panel: Assistant Professor position at University of Engineering & Technology, Pakistan
	Nominated assessor for academic promotion at Curtin University, Australia
	Examination of master's dissertation: University of Cape Town, South Africa; Wrocław University of Science and Technology, Poland
	PhD Assessor: TU Bergakademie Freiberg (Germany), Aalto University (Finland), University of Lorraine (France), University of Exeter (UK), University of Cape Town (South Africa), McGill University (Canada)
	Editor
	Editor-in-Chief (since 2016); Editor (2012-2016) of <i>Physicochemical Problems of Mineral Processing</i> (IF 1.5)
	Editor (since 2017) of <i>Minerals</i> ; Guest Editor of "Selected Papers from the 2 nd International Conference of Young Scholars in Mineral Processing"; "Surfactants at Interfaces and Thin Liquid Films"; "Selected Papers from the 3 rd International Conference of Young Scholars in Mineral Processing"
Editor	Editor (since 2021); Guest Editor (2019) of <i>Frontiers in Chemistry</i> and <i>Frontiers in Physics</i>
	Guest Editor (2019) of Special Issue on Flotation in Honour of Professor Jan Drzymala, for his 70 th Birthday in <i>Mineral Processing and Extractive Metallurgy Review</i> .
	Deputy Editor-in-Chief (since 2012) of <i>Inżynieria Mineralna, Journal of the Polish Mineral Engineering Society</i>
	Editor (since 2013) of <i>Current Chemistry Letters</i>
	Associate Editor (since 2017) of <i>The Open Chemical Engineering Journal</i>
	Advisory Editorial Board (since 2018) of <i>Sci</i>
	Editorial Committee Member (since 2021) of <i>Journal of Central South University</i>
	Co-Editor: <i>E3S Web of Conferences</i> , Volume 8 (2016), Mineral Engineering Conference MEC2016, ISSN 2267-1242
	Co-Editor: <i>Proceedings of the III Polish Mining Congress</i> , September 14-15, 2015, Wrocław, Poland
	Co-Editor of three monographs: <i>Łupki miedzionośny</i> (Copper-bearing shale) Part 1: ISBN 978-83-937788-6-7 (2014); Part 2: ISBN 978-83-942205-1-8 (2016); Part 3: ISBN 978-83-946706-0-3 (2017)

Conference session chairman	Editor: <i>Proceedings of the Mineral Engineering Conference MEC2013</i> , ISBN 978-83-937788-2-9
	<i>Flotation '17</i> , 13-16.11.2017, Cape Town, South Africa
	<i>International Mineral Processing Congress, IMPC 2018</i> , 17-21.09.2018, Moscow, Russia
	<i>Mineral Engineering Conference, MEC2018</i> , 26-29.09.2018, Zawiercie, Poland
	<i>Physical Separation '19</i> , 13-14.06.2019, Falmouth, UK
Organisation of conferences	<i>27th International Mining Congress and Exhibition of Turkey IMCET 2022</i> , 22.25.03.2022, Antalya, Turkey
	<i>Process Mineralogy 22</i> , 2-4.11.2022, Sitges, Spain
	<i>Flotation 23</i> , 6-9.11.2023, Cape Town, South Africa
	<i>International Mineral Processing Congress, IMPC 2024</i> , 29.09-3.10.2024, Washington DC, USA
	<i>2nd International RFC-Symposium</i> , 9-11.04.2024, Trondheim, Norway
Teaching, supervising	<i>EIT International Autumn School 2022, DSM School – From Dredging to Deep-Sea Mining</i> , 19-23.09.2022, Trondheim, Norway
	<i>Mineral Engineering Conference MEC2016</i> , Swieradow-Zdroj, Poland, September 25-28, 2016, vice-chairman
	<i>Mineral Engineering Conference MEC2013</i> , Swieradow-Zdroj, Poland, September 16-19, 2013, conference secretary
	<i>Students and Young Researchers Scientific Conference, Interdisciplinary Topics in Mining and Geology</i> , Szklarska Poreba, Poland, 2009, 2010, 2011, co-organizer
	Lectures: Deep Sea Mining, Processing of Secondary Raw Materials, Flotation, Mineral Processing, Metallurgy, Environmental Protection in Mining; Hydrometallurgy; Laboratories: Mineral Processing, Chemistry, Flotation, Hydrometallurgy, Mineral Processing Design and Optimization, Mineral Processing (EMerald); Metallic Materials and Metallurgical Processes; Basics of Inorganic Chemistry; Basics of Chemical Metallurgy and Corrosion
Invited speech/lectures	Supervision of completed BSc (25) and MSc (10) theses at the Wroclaw University of Science and Technology and LLP/Erasmus (Federation of European Mineral Programs); main or co-supervisor of three completed PhD theses at NTNU, University of Exeter (UK), and Wroclaw University of Science and Technology (Poland), as well as nine ongoing at Norwegian University of Science and Technology (Norway), and Wroclaw University of Science and Technology (Poland); supervisor of five researchers and postdocs at NTNU.
	Keynote at <i>1st Chinese Mineral Processing Congress</i> , September 22-24, 2017, Changsha, China
	Invited lecture at Central South University, Department of Mineral Processing, September 2017, Changsha, China
	Keynote at <i>2nd International Conference of Young Scholars in Mineral Processing</i> , August 21-23, 2018, Changchun, China
	Keynote at <i>Thematic workshop In the Black Deep Sea mining challenges</i> , July 5-6, 2018, Porto, Portugal
Languages	Keynote at <i>International Mineral Processing Congress IMPC 2018</i> , September 15-21, 2018, Moscow, Russia
	Keynote at <i>3rd International Conference of Young Scholars in Mineral Processing</i> , April 26-28, 2019, Mianyang, China
	Invited lecture at Wroclaw University of Environmental and Life Sciences, Faculty of Biotechnology and Food Sciences, January 9, 2023, Wroclaw Poland.
	Keynote at <i>XXIII Conference of PhD students and young scientists, Interdisciplinary topics in mining, geology and geomatics</i> , 13-15 June 2023 Wroclaw, Poland.
	Keynote at <i>XVI International Mineral Processing and Recycling Conference</i> , 28 - 30 May 2025 Belgrade, Serbia.
	Keynote at <i>International Process Metallurgy Symposium</i> , 27-28.10.2025, Espoo, Finland

List of selected papers in peer-reviewed journals

- Galvin K.P., Guner M., Kowalczyk P., 2026. Comments On: Impact assessment and optimization of REFLUX flotation cell (RFC) primary settings on copper sulfide ore flotation (Guner and Kowalczyk, *Minerals Engineering*, 233, 109653, 2025). *Miner. Eng.* 235, 109895.
- Soylu E., Meistad L., Emil-Kaya E., Ekstrøm K.E., Johansson I., **Kowalczyk P.B.**, Tranell G., 2025. Investigation of methanesulfonic acid as a novel leaching agent for metal recovery from municipal solid waste incineration fly ash. *Journal of Sustainable Metallurgy* (accepted).
- Bednarek P.S., **Kowalczyk P.B.**, 2025. Cellulose and its derivatives as a sustainable reagent in mineral flotation: mechanisms and applications. *Sep. Purif. Technol.* 378, 134690.
- Guner M.K., **Kowalczyk P.**, 2025. Impact assessment and optimization of REFLUX flotation cell (RFC) primary settings on copper sulfide ore flotation. *Miner. Eng.* 233, 109653.
- Soylu E., Lode L., Silva C.M., Simavik K.R., Ekstrøm K.E., Johansson I., Sørensen B.E., **Kowalczyk P.B.**, Tranell G., 2025. Comprehensive characterization of solid waste Incineration fly ash before and after salt washing: Evaluating analytical methods for sustainable waste management. *Resources, Conservation & Recycling Advances* 27, 200268.
- Bednarek P.S., Zawala J., **Kowalczyk P.B.**, 2025. Polymer-based collectors in flotation: A review. *Adv. Colloid Interface Sci.*, 335, 103351.
- Kar M.K., Hassanzadeh A., van der Eijk C., **Kowalczyk P.**, Aasly K., Safarian J., 2025. A study on non-isothermal hydrogen reduction of different bauxite residue-calcium pellets for feasible recoverability of iron and alumina. *Miner. Process. Extr. Metall.* (doi: 10.1177/25726641251324041).
- Guner M.K., Lode S., Malafeevskiy N., Aasly K., **Kowalczyk P.**, 2024. Mixed thiol collector system in the flotation of copper ore using the REFLUX Flotation Cell (RFC). *Miner. Eng.* 216, 108843.
- Guner M.K., Akyildiz O., Basarir H., **Kowalczyk P.**, 2024. Exploring the impact of thiol collectors system on copper sulfide flotation through machine learning-driven modeling. *Physicochem. Probl. Miner. Process.*, 60(4), 191709.
- Kruszelnicki M., Polowczyk I., **Kowalczyk P.B.**, 2024. Insight into the influence of surface wettability on flotation properties of solid particles - critical contact angle in flotation. *Powder Technol.* 431, 119056.
- Guner M.K., Hassanzadeh A., Vinnett L., Yianatos J., **Kowalczyk P.B.**, 2023. Effects of operating parameters on residence time distribution in a REFLUX flotation cell. *Miner. Eng.* 204, 108439.
- Kar M., K., Hassanzadeh A., van der Eijk, C., **Kowalczyk P.B.**, Aasly K., Safarian J., 2023. Properties of self-hardened CaO-added bauxite residue pellets, and their behavior in hydrogen reduction followed by leaching and magnetic separation for iron and alumina recovery. *Int. J. Hydrog. Energy* 48(99), 38976-38990.
- Kruszelnicki M., **Kowalczyk P.B.**, Polowczyk I., 2023. Three-phase contact formation between an air bubble and solid surfaces with different hydrophobicity degrees in liquid. *Colloids and Surfaces A: Physicochem. Eng. Aspects*, 676, Part A, 132067.
- Silva C.M., Lode S., Aasly K., **Kowalczyk P.B.**, 2023. Early-stage application of process mineralogy methodologies for mineral tracking in flotation of rare earth elements (REE)-bearing minerals from a deposit in Norway. *Miner. Eng.*, 202, 108268.
- Borkowski M., Batys P., Demchuk O., **Kowalczyk P.B.**, Zawala J., 2023. Amino-acids surfactants and n-octanol mixtures – sustainable, efficient, and dynamically-triggered foaming systems. *Ind. Eng. Chem. Res.* 62, 13498-13509.
- Kosior D., Wiertel-Pochopien A., **Kowalczyk P.B.**, Zawala J., 2023. Bubble formation and motion in liquids - a review. *Minerals* 13(9), 1130.
- Jing G., Meng X., Chen J., Sun W., **Kowalczyk P.B.**, Gao Z., 2023. Electrocoagulation in a packed aluminium scraps anode reactor for mineral processing wastewater treatment. *Miner. Eng.*, 202, 108231.
- Khoshdast H., Hassanzadeh A., **Kowalczyk P.B.**, Farokhpay S., 2022. Characterization techniques of flotation frothers - A review. *Miner. Process. Extr. Met. Review* 44(2), 77-101.
- Jing G., Meng X., Sun W., **Kowalczyk P.B.**, Gao Z., 2023. Recent advances in treatment and recycling of mineral processing wastewater. *Environ. Sci.: Water Res. Technol.*, 9, 1290-1304.
- Hassanzadeh A., Kar M.K., Safarian J., **Kowalczyk P.B.**, 2023. An investigation on reduction of calcium added bauxite residue pellets by hydrogen and iron recovery through physical separation methods. *Metals*, 13(5), 946.
- Hassanzadeh A., Pilla G., Kar M.K., **Kowalczyk P.B.**, 2023. An invitation on characterization of H₂-reduced bauxite residue and recovering iron through wet magnetic separation processes. *Minerals*, 13(6), 728.
- Hassanzadeh A., Safari M., Khoshdast H., Güner MK., Hoang D.H., Sambrook T., **Kowalczyk P.B.**, 2022. Introducing key advantages of intensified flotation cells over conventionally used mechanical and column cells. *Physicochem. Probl. Miner. Process.* 58(5), 155101.

- Nazari S., Zhou S., Hassanzadeh A., Li J., He Y., Bu X., Kowalczyk P.B., 2022. Influence of operating parameters on nanobubble-assisted flotation of graphite. J. Mater. Res. Technol. 20, 3891-3904.
- Nazari S., Hassanzadeh A., He Y., Khoshdast H., **Kowalczyk P.B.**, 2022. Recent developments in generation, detection and application of nanobubbles in flotation. Minerals 12(4), 462.
- Hassanzadeh A., Safari M., Hoang D.H., Khoshdast H., Albijanic B., **Kowalczyk P.B.**, 2022. Technological assessments on recent developments in fine and coarse particle flotation systems. Miner. Eng. 180, 107509.
- Kruszelnicki M., Hassanzadeh A., Legawiec K.J., Polowczyk I., **Kowalczyk P.B.**, 2022. Effect of ultrasound pre-treatment on carbonaceous copper-bearing shale flotation. Ultrason. Sonochem. 84, 105962.
- Witecki K., Polowczyk I., **Kowalczyk P.B.**, 2022. Chemistry of wastewater circuits in mineral processing industry – a review. J. Water Process. Eng. 45, 102509.
- Kruszelnicki M., Polowczyk I., **Kowalczyk P.B.**, 2022. Control of glass surface wettability via esterification with n-alkyl alcohols. Physicochem. Probl. Miner. Process. 58(2), 145147.
- Matos V.E., Nogueira S.C.S., **Kowalczyk P.B.**, Silva G.R., Peres A.E.C., 2022. Differences in etheramine froth properties and the effects on iron ore flotation. Part 1: Two-phase system. Miner. Process. Extr. Met. Review. 43(2), 209-216.
- Matos V.E., Nogueira S.C.S., Silva G.R., **Kowalczyk P.B.**, Peres A.E.C., 2022. Differences in etheramine froth properties and the effects on iron ore flotation. Part 2: Three-phase system. Miner. Process. Extr. Met. Review. 43(2), 243-250.
- Ochromowicz K., Aasly K., **Kowalczyk P.B.**, 2021. Recent advancements in metallurgical processing of marine minerals. Minerals 11(12), 1437.
- Jing G., Ren S., Pooley S., Sun W., **Kowalczyk P.B.**, Gao Z., 2021. Electrocoagulation for industrial wastewater treatment: An updated review. Environ. Sci.: Water Res. Technol. 7, 1177-1196.
- Gao Z., Wang C., Sun W., Gao Y., **Kowalczyk P.B.**, 2021. Froth flotation of fluorite: A review. Adv. Colloid Interface Sci., 290, 102382.
- Wiertel-Pochopien A., Batys P., Zawala J., **Kowalczyk P.B.**, 2021. Synergistic effect of binary surfactant mixtures in two-phase and three-phase systems. J. Phys. Chem. B. 125, 15, 3855-3866.
- Gao Z., Zawala J., **Kowalczyk P.B.**, 2020. Editorial: Surface Chemistry of Flotation. Front. Mater. doi: 10.3389/fmats.2020.595146.
- Drzymala J., Bednarek-Gabka P., **Kowalczyk P.B.**, 2020. Simplified empirical and phenomenological evaluation of relation between particle size and kinetics of flotation. Powder Technol., 366, 112-118.
- Zawala J., Wiertel-Pochopien A., **Kowalczyk P.B.**, 2020. Critical synergistic concentration of binary surfactant mixtures. Minerals 10(2), 192.
- Zawala J., Malysa K., **Kowalczyk P.B.**, 2020. On importance of external conditions and properties of the interacting phases in formation and stability of symmetrical and unsymmetrical liquid films. Adv. Colloid Interface Sci., 276, 102085.
- Zawala J., Wiertel-Pochopien A., Larsen E., **Kowalczyk P.B.**, 2020. Synergism between cationic alkyltrimethylammonium bromides (CnTAB) and nonionic n-octanol in foamability of their mixed solutions. Ind. Eng. Chem. Res. 59(3), 1159-1167.
- Kowalczyk P.B.**, 2019. Honorary note: Jan Drzymala-70th birthday. Physicochem. Probl. Miner. Process. 55(6), 1577-1591.
- Larsen E., Johannessen N.E., **Kowalczyk P.B.**, Kleiv R.A., 2019. Selective flotation of K-feldspar from Na-feldspar in alkaline environment. Miner. Eng. 142, 105928.
- Kowalczyk P.B.**, Bouzazhah H., Kleiv R.A., Aasly K., 2019. Simultaneous leaching of seafloor massive sulphides and polymetallic nodules. Minerals 9(8), 482.
- Larsen E., **Kowalczyk P.B.**, Kleiv R.A., 2019. Non-HF collectorless flotation of quartz. Miner. Eng. 133, 115-118.
- Kowalczyk P.B.**, Manaig D.O., Drivenes K., Snook B., Aasly K., Kleiv R.A., 2018. Galvanic leaching of seafloor massive sulphides using MnO₂ in H₂SO₄-NaCl media. Minerals 8(6), 235.
- Szczerkowska S., Wiertel-Pochopien A., Zawala J., Larsen E., **Kowalczyk P.B.**, 2018. Kinetics of froth flotation of naturally hydrophobic solids with different shapes. Miner. Eng. 121, 90-99.
- Polowczyk I., Kruszelnicki M., **Kowalczyk P.B.**, 2018. Heterocoagulation of shale particles and bubbles in the presence of ionic surfactants. Colloids and Surfaces A: Physicochem. Eng. Aspects 554, 180-186.
- Polowczyk I., Kruszelnicki M., **Kowalczyk P.B.**, 2018. Oil agglomeration of metal-bearing shale in the presence of mixed cationic-anionic surfactants. Physicochem. Probl. Miner. Process. 54(4), 1052-1059.
- Drzymala J., **Kowalczyk P.B.**, 2018. Classification of flotation frothers. Minerals 8(2), 53.
- Kowalczyk P.B.**, Snook B., Kleiv R.A., Aasly K., 2018. Efficient extraction of copper and zinc from seafloor massive sulphide rock samples from the Loki's Castle area at the Arctic Mid-Ocean Ridge. Miner. Eng. 115, 106-116.
- Kosior D., **Kowalczyk P.B.**, Zawala J., 2018. Surface roughness in bubble attachment and flotation of highly hydrophobic solids in presence of frother-experiment and simulations. Physicochem. Probl. Miner. Process. 54(1), 63-72.

- Kowalczyk P.B., Siedlarz M., Szczerkowska S., Wojcik M., 2018. Facile determination of foamability index of non-ionic and cationic frothers and its effect on flotation of quartz. Sep. Sci. Techn. 53(8), 1198–1206.
- Kowalczyk P.B., Zawala J., Drzymala J., 2017. Concentration at the minimum bubble velocity (CMV) for various types of flotation frothers. Minerals 7(7), 118.
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