Martin Rudolph

List of Publications by Year
in descending order

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74 papers	1,739 citations	257357 24 h-index	302012 39 g-index
77 all docs	77 docs citations	77 times ranked	1234 citing authors

#	Article	IF	Citations
1	A contribution to exploring the importance of surface air nucleation in froth flotation â€“ The effects of dissolved air on graphite flotation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 633, 127866.	2.3	12
2	Improving Separation Efficiency in End-of-Life Lithium-Ion Batteries Flotation Using Attrition Pre-Treatment. Minerals (Basel, Switzerland), 2022, 12, 72.	0.8	37
3	Recovery of fine gold loss to tailings using advanced reactor pneumatic flotation ImhoflotTM. Minerals Engineering, 2022, , 107649.	1.8	0
4	Joint recovery of graphite and lithium metal oxides from spent lithium-ion batteries using froth flotation and investigation on process water re-use. Minerals Engineering, 2022, 184, 107670.	1.8	23
5	Influence of MIBC on the surface-air nucleation and bubble-particle loading in graphite froth flotation. Minerals Engineering, 2022, 185, 107714.	1.8	9
6	Study of the Influence of the Crystallographic Orientation of Cassiterite Observed with Colloidal Probe Atomic Force Microscopy and its Implications for Hydrophobization by an Anionic Flotation Collector. ACS Omega, 2021, 6, 4212-4226.	1.6	4
7	Impact of Sodium Hexametaphosphate on the Flotation of Ultrafine Magnesite from Dolomite-Rich Desliming Tailings. Minerals (Basel, Switzerland), 2021, 11, 499.	0.8	3
8	Electrochemical Characterization of Sulphide Mineralsâ€“Halophilic Bacteria Surface Interaction for Bioflotation Applications. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 3373-3382.	1.0	3
9	Automated mineralogy as a novel approach for the compositional and textural characterization of spent lithium-ion batteries. Minerals Engineering, 2021, 169, 106924.	1.8	34
10	The quantification of entropy for multicomponent systems: Application to microwave-assisted comminution. Minerals Engineering, 2021, 170, 107016.	1.8	7
11	Computing single-particle flotation kinetics using automated mineralogy data and machine learning. Minerals Engineering, 2021, 170, 107054.	1.8	10
12	Coarse-Grain molecular model development and dynamics simulations study of dodecane droplet spreading at the coal-water interface. Minerals Engineering, 2021, 171, 107121.	1.8	4
13	Characterizing material liberation of multi-material lightweight structures from shredding experiments and finite element simulations. Minerals Engineering, 2021, 172, 107142.	1.8	7
14	A contribution to understanding the flotation behavior of lithium metal oxides and spheroidized graphite for lithium-ion battery recycling. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 626, 127111.	2.3	43
15	A contribution to wettability and wetting characterisation of ultrafine particles with varying shape and degree of hydrophobization. Applied Surface Science, 2021, 566, 150725.	3.1	11
16	High-Gradient Magnetic Separation of Compact Fluorescent Lamp Phosphors: Elucidation of the Removal Dynamics in a Rotary Permanent Magnet Separator. Minerals (Basel, Switzerland), 2021, 11, 1116.	0.8	8
17	Mechanisms of pyrite biodepression with Acidithiobacillus ferrooxidans in seawater flotation. Minerals Engineering, 2020, 145, 106067.	1.8	13
18	Halophilic bacteria as potential pyrite bio-depressants in Cu-Mo bioflotation. Minerals Engineering, 2020, 145, 106062.	1.8	21

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19	R as an environment for data mining of process mineralogy data: A case study of an industrial rougher flotation bank. Minerals Engineering, 2020, 146, 106111.	1.8	9
20	Multiscale Tomographic Analysis for Micron-Sized Particulate Samples. Microscopy and Microanalysis, 2020, 26, 676-688.	0.2	14
21	The Potential Role of Colloidal Silica as a Depressant in Scheelite Flotation. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	0.8	8
22	Multidimensional characterization of separation processes â€“ Part 2: Comparability of separation efficiency. Minerals Engineering, 2020, 150, 106284.	1.8	12
23	Study of process water recirculation in a flotation plant by means of process simulation. Minerals Engineering, 2020, 148, 106181.	1.8	11
24	Acidified water glass in the selective flotation of scheelite from calcite, part II: species in solution and related mechanism of the depressant. Physicochemical Problems of Mineral Processing, 2020, 56, 798-817.	0.2	7
25	Co-localized (colloidal probe) atomic force microscopy/Raman spectroscopy measurements for hydrophobicity characterization. Minerals Engineering, 2019, 141, 105838.	1.8	2
26	Surface nanobubbles on the rare earth fluorcarbonate mineral synchysite. Journal of Colloid and Interface Science, 2019, 552, 66-71.	5.0	8
27	Fast preparation and recycling method for colloidal probe cantilevers in hydrophobic mapping applications. MethodsX, 2019, 6, 651-659.	0.7	4
28	Multidimensional characterization of separation processes â€“ Part 1: Introducing kernel methods and entropy in the context of mineral processing using SEM-based image analysis. Minerals Engineering, 2019, 137, 78-86.	1.8	29
29	Water-saving strategies in the mining industry â€“ The potential of mineral processing simulators as a tool for their implementation. Journal of Environmental Management, 2019, 234, 546-553.	3.8	10
30	The role of surface forces in mineral flotation. Current Opinion in Colloid and Interface Science, 2019, 44, 143-152.	3.4	27
31	Froth properties and entrainment in lab-scale flotation: A case of carbonaceous sedimentary phosphate ore. Chemical Engineering Research and Design, 2019, 142, 100-110.	2.7	26
32	Impact of flotation hydrodynamics on the optimization of fine-grained carbonaceous sedimentary apatite ore beneficiation. Powder Technology, 2019, 345, 223-233.	2.1	36
33	Neutron imaging of froth structure and particle motion. Minerals Engineering, 2018, 119, 126-129.	1.8	19
34	The application of atomic force microscopy in mineral flotation. Advances in Colloid and Interface Science, 2018, 256, 373-392.	7.0	108
35	Froth flotation of scheelite â€“ A review. International Journal of Mining Science and Technology, 2018, 28, 373-384.	4.6	153
36	Characterizing mineral wettabilities on a microscale by colloidal probe atomic force microscopy. Minerals Engineering, 2018, 121, 212-219.	1.8	13

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37	Flotation study of fine grained carbonaceous sedimentary apatite ore â€“ Challenges in process mineralogy and impact of hydrodynamics. Minerals Engineering, 2018, 121, 196-204.	1.8	52
38	Surface nanobubbles on the carbonate mineral dolomite. RSC Advances, 2018, 8, 35448-35452.	1.7	9
39	Role of sodium carbonate in scheelite flotation â€“ A multi-faceted reagent. Minerals Engineering, 2018, 129, 120-128.	1.8	29
40	Evaluation of Magnetic Separation Efficiency on a Cassiterite-Bearing Skarn Ore by Means of Integrative SEM-Based Image and XRFâ€“XRD Data Analysis. Minerals (Basel, Switzerland), 2018, 8, 390.	0.8	25
41	Reprocessing of a Southern Chilean Zn Tailing by Flotationâ€”A Case Study. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.8	15
42	A novel method for measuring flotation recovery by means of 4D particle tracking velocimetry. Minerals Engineering, 2018, 124, 116-122.	1.8	13
43	Feldspar flotation as a quartz-purification method in cosmogenic nuclide dating: A case study of fluvial sediments from the Pamir. MethodsX, 2018, 5, 717-726.	0.7	5
44	Challenges in predicting the role of water chemistry in flotation through simulation with an emphasis on the influence of electrolytes. Minerals Engineering, 2018, 125, 252-264.	1.8	25
45	Near-Field Optical Examination of Potassium n-Butyl Xanthate/Chalcopyrite Flotation Products. Minerals (Basel, Switzerland), 2018, 8, 118.	0.8	5
46	How gangue particle size can affect the recovery of ultrafine and fine particles during froth flotation. Minerals Engineering, 2017, 109, 1-9.	1.8	56
47	An evaluation of hydroxamate collectors for malachite flotation. Separation and Purification Technology, 2017, 183, 258-269.	3.9	95
48	The action of cellulose-based and conventional flotation reagents under dry and wet conditions correlating inverse gas chromatography to microflotation studies. Minerals Engineering, 2017, 114, 17-25.	1.8	12
49	Investigating the removal of particles from the air/water-interface â€“ Modelling detachment forces using an energetic approach. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 513, 215-222.	2.3	15
50	Specific surface free energy component distributions and flotabilities of mineral microparticles in flotationâ€”An inverse gas chromatography study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 513, 380-388.	2.3	36
51	A mineral liberation study of grain boundary fracture based on measurements of the surface exposure after milling. International Journal of Mineral Processing, 2016, 156, 3-13.	2.6	35
52	A Special Issue of the International Journal of Mineral Processing honoring Prof. Dr. sc. techn. Drs. h.c. Heinrich Schubert. International Journal of Mineral Processing, 2016, 156, 1-2.	2.6	0
53	A study of the reprocessing of fine and ultrafine cassiterite from gravity tailing residues by using various flotation techniques. Minerals Engineering, 2016, 96-97, 94-98.	1.8	79
54	Alkyl aminated nanocelluloses in selective flotation of aluminium oxide and quartz. Chemical Engineering Science, 2016, 144, 260-266.	1.9	48

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55	A Review of Graphite Beneficiation Techniques. Mineral Processing and Extractive Metallurgy Review, 2016, 37, 58-68.	2.6	129
56	Study of the relationship between zinnwaldite chemical composition and magnetic susceptibility. Minerals Engineering, 2015, 72, 27-30.	1.8	11
57	Attachment of solid elongated particles on the surface of a stationary gas bubble. International Journal of Multiphase Flow, 2015, 71, 83-93.	1.6	24
58	A review of rare earth minerals flotation: Monazite and xenotime. International Journal of Mining Science and Technology, 2015, 25, 877-883.	4.6	72
59	Hydrophobicity of Minerals Determined by Atomic Force Microscopy â€“ A Tool for Flotation Research. Chemie-Ingenieur-Technik, 2014, 86, 865-873.	0.4	14
60	Selective Separation of Ultrafine Particles Using Twoâ€Liquid Flotation. Chemie-Ingenieur-Technik, 2014, 86, 831-839.	0.4	10
61	Untersuchung der Haftung zwischen Pulverpartikeln und strukturierten OberflÃchen mithilfe der Vibrationsmethode. Chemie-Ingenieur-Technik, 2014, 86, 341-346.	0.4	2
62	Effect of solvent exchange on the stability of sterically functionalized magnetite nanoparticles in poly(methyl methacrylate) solutions and resulting spray dried composites. Chemical Engineering Research and Design, 2014, 92, 2523-2533.	2.7	1
63	Mapping hydrophobicity combining AFM and Raman spectroscopy. Minerals Engineering, 2014, 66-68, 181-190.	1.8	18
64	Milling Result Prediction. Lecture Notes in Earth System Sciences, 2014, , 717-721.	0.5	0
65	Effect of compounding principles on thermal, mechanical and magnetic performance of soft magnetic polymethylmethacrylate/Fe3O4 nanocomposites. Journal of Reinforced Plastics and Composites, 2013, 32, 1928-1933.	1.6	1
66	Nanocomposites Based on Technical Polymers and Sterically Functionalized Soft Magnetic Magnetite Nanoparticles: Synthesis, Processing, and Characterization. Journal of Nanomaterials, 2012, 2012, 1-8.	1.5	30
67	Phase transfer of agglomerated nanoparticles: deagglomeration by adsorbing grafted molecules and colloidal stability in polymer solutions. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	15
68	A TGAâ€“FTIR perspective of fatty acid adsorbed on magnetite nanoparticlesâ€“Decomposition steps and magnetite reduction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 397, 16-23.	2.3	59
69	Coagulation and stabilization of sterically functionalized magnetite nanoparticles in an organic solvent with different technical polymers. Journal of Colloid and Interface Science, 2011, 357, 292-299.	5.0	21
70	Phaseâ€contrast Atomic Force Microscopy for the Characterization of the Distribution of Nanoparticles in Composite Materials. Chemie-Ingenieur-Technik, 2010, 82, 2189-2195.	0.4	8
71	Green fluorescent nanodiamond conjugates and their possible applications for biosensing. Proceedings of SPIE, 2010, , .	0.8	4
72	Production of Amphiphilic Hydroxamate Siderophores Marinobactins by <i>Marinobacter</i> sp. DS40M6 for Bioflotation Process. Solid State Phenomena, 0, 262, 413-416.	0.3	3

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73	Investigation of a Bioflotation Interface with Infrared Spectroscopy. Solid State Phenomena, 0, 262, 537-540.	0.3	0
74	Carrier Flotation: State of the Art and its Potential for the Separation of Fine and Ultrafine Mineral Particles. Materials Science Forum, 0, 959, 125-133.	0.3	17