

Yiannis Pontikes

List of Publications by Citations

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124
papers

4,307
citations

36
h-index

62
g-index

131
ext. papers

5,228
ext. citations

5.9
avg, IF

5.97
L-index

#	Paper	IF	Citations
124	Towards zero-waste valorisation of rare-earth-containing industrial process residues: a critical review. <i>Journal of Cleaner Production</i> , 2015 , 99, 17-38	10.3	349
123	Leaching of rare earths from bauxite residue (red mud). <i>Minerals Engineering</i> , 2015 , 76, 20-27	4.9	280
122	Enhanced Landfill Mining in view of multiple resource recovery: a critical review. <i>Journal of Cleaner Production</i> , 2013 , 55, 45-55	10.3	224
121	Productive sugar isomerization with highly active Sn in dealuminated Zeolites. <i>Green Chemistry</i> , 2013 , 15, 2777	10	195
120	Characterization of landfilled materials: screening of the enhanced landfill mining potential. <i>Journal of Cleaner Production</i> , 2013 , 55, 72-83	10.3	152
119	Recovery of Rare Earths and Other Valuable Metals From Bauxite Residue (Red Mud): A Review. <i>Journal of Sustainable Metallurgy</i> , 2016 , 2, 365-386	2.7	149
118	Cooperative Catalysis for Multistep Biomass Conversion with Sn/Al Beta Zeolite. <i>ACS Catalysis</i> , 2015 , 5, 928-940	13.1	137
117	Selective recovery of rare earths from bauxite residue by combination of sulfation, roasting and leaching. <i>Minerals Engineering</i> , 2016 , 92, 151-159	4.9	109
116	Bauxite residue in cement and cementitious applications: Current status and a possible way forward. <i>Resources, Conservation and Recycling</i> , 2013 , 73, 53-63	11.9	106
115	Effect of accelerated carbonation on AOD stainless steel slag for its valorisation as a CO ₂ -sequestering construction material. <i>Chemical Engineering Journal</i> , 2014 , 246, 39-52	14.7	104
114	Effect of mechanical activation on the hydraulic properties of stainless steel slags. <i>Cement and Concrete Research</i> , 2012 , 42, 778-788	10.3	103
113	Smelting of Bauxite Residue (Red Mud) in View of Iron and Selective Rare Earths Recovery. <i>Journal of Sustainable Metallurgy</i> , 2016 , 2, 28-37	2.7	94
112	Post-synthesis Sn—An exploration of synthesis parameters and catalysis. <i>Journal of Catalysis</i> , 2015 , 330, 545-557	7.3	75
111	Slags with a high Al and Fe content as precursors for inorganic polymers. <i>Applied Clay Science</i> , 2013 , 73, 93-102	5.2	71
110	Valorisation of electric arc furnace steel slag as raw material for low energy belite cements. <i>Journal of Hazardous Materials</i> , 2011 , 196, 287-94	12.8	70
109	Effect of firing temperature and atmosphere on ceramics made of NW Peloponnese clay sediments. Part I: Reaction paths, crystalline phases, microstructure and colour. <i>Journal of the European Ceramic Society</i> , 2010 , 30, 1841-1851	6	67
108	Advances in alkali-activation of clay minerals. <i>Cement and Concrete Research</i> , 2020 , 132, 106050	10.3	66

107	Use of boron wastes in the production of heavy clay ceramics. <i>Ceramics International</i> , 2009 , 35, 447-452	5.1	63
106	Thermal behaviour of clay mixtures with bauxite residue for the production of heavy-clay ceramics. <i>Journal of the European Ceramic Society</i> , 2007 , 27, 1645-1649	6	61
105	Near-zero-waste processing of low-grade, complex primary ores and secondary raw materials in Europe: technology development trends. <i>Resources, Conservation and Recycling</i> , 2020 , 160, 104919	11.9	57
104	Confinement Effects in Lewis Acid-Catalyzed Sugar Conversion: Steering Toward Functional Polyester Building Blocks. <i>ACS Catalysis</i> , 2015 , 5, 5803-5811	13.1	52
103	Effect of firing temperature and atmosphere on sintering of ceramics made from Bayer process bauxite residue. <i>Ceramics International</i> , 2009 , 35, 401-407	5.1	52
102	Potassium-rich biomass ashes as activators in metakaolin-based inorganic polymers. <i>Applied Clay Science</i> , 2016 , 119, 401-409	5.2	50
101	Ladle metallurgy stainless steel slag as a raw material in Ordinary Portland Cement production: a possibility for industrial symbiosis. <i>Journal of Cleaner Production</i> , 2016 , 112, 872-881	10.3	49
100	Influence of mechanical and chemical activation on the hydraulic properties of gamma dicalcium silicate. <i>Cement and Concrete Research</i> , 2014 , 55, 59-68	10.3	49
99	Cementitious binders from activated stainless steel refining slag and the effect of alkali solutions. <i>Journal of Hazardous Materials</i> , 2015 , 286, 211-9	12.8	48
98	Recovery of Rare Earths and Major Metals from Bauxite Residue (Red Mud) by Alkali Roasting, Smelting, and Leaching. <i>Journal of Sustainable Metallurgy</i> , 2017 , 3, 393-404	2.7	46
97	New perspectives and issues arising from the introduction of (NORM) residues in building materials: A critical assessment on the radiological behaviour. <i>Construction and Building Materials</i> , 2015 , 82, 323-331	6.7	45
96	Sintered esseneite-wollastonite-plagioclase glass-ceramics from vitrified waste. <i>Journal of the European Ceramic Society</i> , 2009 , 29, 2921-2927	6	45
95	Synthesis, characterization and properties of calcium ferroaluminate belite cements produced with electric arc furnace steel slag as raw material. <i>Cement and Concrete Composites</i> , 2013 , 44, 1-8	8.6	43
94	Thermal behaviour of clays for traditional ceramics with soda-silica waste glass admixture. <i>Journal of the European Ceramic Society</i> , 2007 , 27, 1657-1663	6	42
93	A Proposal for a 100 % Use of Bauxite Residue Towards Inorganic Polymer Mortar. <i>Journal of Sustainable Metallurgy</i> , 2016 , 2, 394-404	2.7	39
92	Effect of curing temperatures on the alkali activation of crystalline continuous casting stainless steel slag. <i>Construction and Building Materials</i> , 2014 , 71, 308-316	6.7	38
91	Effect of High Cooling Rates on the Mineralogy and Hydraulic Properties of Stainless Steel Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2013 , 44, 1173-1184	2.5	38
90	Effect of firing temperature and atmosphere on ceramics made of NW Peloponnese clay sediments: Part II. Chemistry of pyrometamorphic minerals and comparison with ancient ceramics. <i>Journal of the European Ceramic Society</i> , 2010 , 30, 1853-1866	6	37

89	Geopolymers, inorganic polymers, alkali-activated materials and hybrid binders from bauxite residue (red mud) [Putting things in perspective. <i>Journal of Cleaner Production</i> , 2020 , 258, 120610	10.3	36
88	Use of modified bauxite residue-based porous inorganic polymer monoliths as adsorbents of methylene blue. <i>Journal of Cleaner Production</i> , 2019 , 227, 877-889	10.3	35
87	Early Age Microstructural Transformations of an Inorganic Polymer Made of Fayalite Slag. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 2269-2277	3.8	35
86	Inorganic Polymer Cement from Fe-Silicate Glasses: Varying the Activating Solution to Glass Ratio. <i>Waste and Biomass Valorization</i> , 2014 , 5, 411-428	3.2	34
85	Mix-design Parameters and Real-life Considerations in the Pursuit of Lower Environmental Impact Inorganic Polymers. <i>Waste and Biomass Valorization</i> , 2018 , 9, 879-889	3.2	32
84	Molecular structure of CaO-FeOx-BiO2 glassy slags and resultant inorganic polymer binders. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 5846-5857	3.8	32
83	Inorganic Polymers from a Plasma Converter Slag: Effect of Activating Solution on Microstructure and Properties. <i>Journal of Sustainable Metallurgy</i> , 2015 , 1, 240-251	2.7	31
82	Effect of NaOH content on hydration, mineralogy, porosity and strength in alkali/sulfate-activated binders from ground granulated blast furnace slag and phosphogypsum. <i>Cement and Concrete Research</i> , 2020 , 132, 106054	10.3	30
81	Inorganic polymers made of fayalite slag: On the microstructure and behavior of Fe. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 2245-2257	3.8	30
80	The influence of curing conditions on the mechanical properties and leaching of inorganic polymers made of fayalitic slag. <i>Frontiers of Chemical Science and Engineering</i> , 2017 , 11, 317-327	4.5	27
79	Nano-mineralogy and -geochemistry of high-grade diasporic karst-type bauxite from Parnassos-Ghiona mines, Greece. <i>Ore Geology Reviews</i> , 2017 , 84, 228-244	3.2	27
78	Integrated Mineral Carbonation Reactor Technology for Sustainable Carbon Dioxide Sequestration: [CO ₂ Energy Reactor] <i>Energy Procedia</i> , 2013 , 37, 5884-5891	2.3	24
77	Byproduct-based ettringite binder [A synergy between ladle slag and gypsum. <i>Construction and Building Materials</i> , 2019 , 197, 143-151	6.7	24
76	The fate of iron during the alkali-activation of synthetic (CaO-)FeOx-SiO ₂ slags: An Fe K-edge XANES study. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 2107-2118	3.8	24
75	Identifying hotspots of environmental impact in the development of novel inorganic polymer paving blocks from bauxite residue. <i>Resources, Conservation and Recycling</i> , 2018 , 138, 87-98	11.9	23
74	Progress and Prospects in the Field of Biomass and Waste to Energy and Added-Value Materials. <i>Waste and Biomass Valorization</i> , 2017 , 8, 1875-1884	3.2	23
73	Transforming Enhanced Landfill Mining Derived Gasification/Vitrification Glass into Low-Carbon Inorganic Polymer Binders and Building Products. <i>Journal of Sustainable Metallurgy</i> , 2017 , 3, 405-415	2.7	22
72	Alkali-activated binders based on ground granulated blast furnace slag and phosphogypsum. <i>Construction and Building Materials</i> , 2019 , 215, 371-380	6.7	22

71	The Rare Earth Elements Potential of Greek Bauxite Active Mines in the Light of a Sustainable REE Demand. <i>Journal of Sustainable Metallurgy</i> , 2019 , 5, 20-47	2.7	22
70	Metakaolinite Phosphate Cementitious Matrix: Inorganic Polymer Obtained by Acidic Activation. <i>Materials</i> , 2019 , 12,	3.5	21
69	Feasibility of incorporating phosphogypsum in ettringite-based binder from ladle slag. <i>Journal of Cleaner Production</i> , 2019 , 237, 117793	10.3	21
68	Mud2Metal: Lessons Learned on the Path for Complete Utilization of Bauxite Residue Through Industrial Symbiosis. <i>Journal of Sustainable Metallurgy</i> , 2017 , 3, 551-560	2.7	20
67	Valorisation of different types of boron-containing wastes for the production of lightweight aggregates. <i>Journal of Hazardous Materials</i> , 2011 , 185, 1381-9	12.8	20
66	Inorganic Polymers From CaO-FeOx-SiO2 Slag: The Start of Oxidation of Fe and the Formation of a Mixed Valence Binder. <i>Frontiers in Materials</i> , 2019 , 6,	4	18
65	Classical and alternative fuel mix optimization in cement production using mathematical programming. <i>Fuel</i> , 2011 , 90, 1277-1284	7.1	18
64	Porous, Sintered Glass-Ceramics from Inorganic Polymers Based on Fayalite Slag. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 1985-1991	3.8	17
63	Magnetic Glass Ceramics by Sintering of Borosilicate Glass and Inorganic Waste. <i>Materials</i> , 2014 , 7, 5565-5580	3.5	17
62	Upcycling of non-ferrous metallurgy slags: Identifying the most reactive slag for inorganic polymer construction materials. <i>Resources, Conservation and Recycling</i> , 2020 , 154, 104627	11.9	17
61	The impact of slag fineness on the reactivity of blended cements with high-volume non-ferrous metallurgy slag. <i>Construction and Building Materials</i> , 2020 , 257, 119400	6.7	16
60	Comparative Analysis of Processes for Recovery of Rare Earths from Bauxite Residue. <i>Jom</i> , 2016 , 68, 2958-2962	2.1	15
59	Radon immobilization potential of alkali-activated materials containing ground granulated blast furnace slag and phosphogypsum. <i>Construction and Building Materials</i> , 2018 , 184, 68-75	6.7	15
58	The role of nano-perovskite in the negligible thorium release in seawater from Greek bauxite residue (red mud). <i>Scientific Reports</i> , 2016 , 6, 21737	4.9	14
57	Evolution of microstructure, mineralogy and properties during firing of clay-based ceramics with borates. <i>Ceramics International</i> , 2010 , 36, 567-575	5.1	14
56	Incorporating Cs and Sr into blast furnace slag inorganic polymers and their effect on matrix properties. <i>Journal of Nuclear Materials</i> , 2018 , 503, 1-12	3.3	13
55	Stabilisation and Microstructural Modification of Stainless Steel Converter Slag by Addition of an Alumina Rich By-Product. <i>Waste and Biomass Valorization</i> , 2014 , 5, 343-353	3.2	12
54	Impact of the solidification path of FeOxBiO2 slags on the resultant inorganic polymers. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 2173-2184	3.8	12

53	Alkali Activation of AOD Stainless Steel Slag Under Steam Curing Conditions. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 3062-3074	3.8	11
52	Transformation of stainless steel slag toward a reactive cementitious binder. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 1727-1736	3.8	11
51	Reaction kinetics and structural analysis of alkali activated FeSiCa rich materials. <i>Journal of Cleaner Production</i> , 2020 , 246, 119065	10.3	11
50	Shrinkage and Mitigation Strategies to Improve the Dimensional Stability of CaO-FeO-AlO-SiO Inorganic Polymers. <i>Materials</i> , 2019 , 12,	3.5	11
49	In-situ measurements of high-temperature dielectric properties of municipal solid waste incinerator bottom ash. <i>Ceramics International</i> , 2019 , 45, 18751-18759	5.1	10
48	The influence of air and temperature on the reaction mechanism and molecular structure of Fe-silicate inorganic polymers. <i>Journal of Non-Crystalline Solids</i> , 2019 , 526, 119675	3.9	10
47	Hydraulic Behavior of Mechanically and Chemically Activated Synthetic Merwinite. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 3973-3981	3.8	10
46	Radiological and leaching assessment of an ettringite-based mortar from ladle slag and phosphogypsum. <i>Cement and Concrete Research</i> , 2020 , 128, 105954	10.3	10
45	Modifications of basic-oxygen-furnace slag microstructure and their effect on the rheology and the strength of alkali-activated binders. <i>Cement and Concrete Composites</i> , 2019 , 97, 143-153	8.6	10
44	Radiological and non-radiological leaching assessment of alkali-activated materials containing ground granulated blast furnace slag and phosphogypsum. <i>Science of the Total Environment</i> , 2019 , 660, 1098-1107	10.2	9
43	SilicaCarbon Nanocomposite Acid Catalyst with Large Mesopore Interconnectivity by Vapor-Phase Assisted Hydrothermal Treatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 7859-7870	8.3	9
42	Unraveling the nano-structure of a glassy CaO-FeO-SiO ₂ slag by molecular dynamics simulations. <i>Journal of Non-Crystalline Solids</i> , 2020 , 528, 119771	3.9	9
41	Evaluating the material resource efficiency of secondary aluminium production: A Monte Carlo-based decision-support tool. <i>Journal of Cleaner Production</i> , 2019 , 215, 488-496	10.3	9
40	Boosting the use of bauxite residue (red mud) in cement - Production of an Fe-rich calciumsulfoaluminate-ferrite clinker and characterisation of the hydration. <i>Cement and Concrete Research</i> , 2021 , 145, 106463	10.3	9
39	Characterization of bauxite residue (red mud) for U, U, Th and K using neutron activation analysis and the radiation dose levels as modeled by MCNP. <i>Journal of Environmental Radioactivity</i> , 2017 , 173, 97-101	2.4	8
38	Understanding the leaching behavior of inorganic polymers made of iron rich slags. <i>Journal of Cleaner Production</i> , 2019 , 238, 117736	10.3	8
37	On a new hydraulic binder from stainless steel converter slag. <i>Advances in Cement Research</i> , 2013 , 25, 21-31	1.8	8
36	Kinetics of pore formation and resulting properties of lightweight inorganic polymers. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 3940-3950	3.8	8

35	The effect of gamma radiation on the mechanical and microstructural properties of Fe-rich inorganic polymers. <i>Journal of Nuclear Materials</i> , 2019 , 521, 126-136	3.3	7
34	Investigating the binding potential of continuous casting stainless steel slag by alkali activation. <i>Advances in Cement Research</i> , 2014 , 26, 256-270	1.8	7
33	The influence of porosity on radon emanation in alkali-activated mortars containing high volume bauxite residue. <i>Construction and Building Materials</i> , 2020 , 230, 116982	6.7	6
32	Scalable Synthesis of Acidic Mesostructured Silica/Carbon Nanocomposite Catalysts by Rotary Evaporation. <i>ChemCatChem</i> , 2017 , 9, 65-69	5.2	5
31	Cementitious Binders Incorporating Residues 2014 , 219-229		5
30	Rheology of an alkali-activated Fe-rich slag suspension: Identifying the impact of the activator chemistry and slag particle interactions. <i>Journal of Non-Crystalline Solids</i> , 2021 , 561, 120747	3.9	5
29	Porous glass-ceramics made from microwave vitrified municipal solid waste incinerator bottom ash. <i>Construction and Building Materials</i> , 2021 , 270, 121452	6.7	5
28	Valorising Slags from Non-ferrous Metallurgy into Hybrid Cementitious Binders: Mix Design and Performance. <i>Waste and Biomass Valorization</i> , 2021 , 12, 4679	3.2	5
27	The effect of high dose rate gamma irradiation on the curing of CaO-Fe _x O _y -SiO ₂ slag based inorganic polymers: Mechanical and microstructural analysis. <i>Journal of Nuclear Materials</i> , 2020 , 539, 152237	3.3	4
26	Slag Valorisation as a Contribution to Zero-Waste Metallurgy. <i>Journal of Sustainable Metallurgy</i> , 2016 , 2, 1-2	2.7	4
25	Shielding effectiveness of construction materials. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2016 , 52, 137-144	0.4	4
24	A new approach for the vitrification of municipal solid waste incinerator bottom ash by microwave irradiation. <i>Journal of Cleaner Production</i> , 2021 , 284, 124787	10.3	4
23	Correlating the amorphous phase structure of vitrified bauxite residue (red mud) to the initial reactivity in binder systems. <i>Cement and Concrete Composites</i> , 2022 , 127, 104410	8.6	3
22	INCREASING THE DIMENSIONAL STABILITY OF CAO-FeOx-AL ₂ O ₃ -SIO ₂ ALKALI-ACTIVATED MATERIALS: ON THE SWELLING POTENTIAL OF CALCIUM OXIDE-RICH ADMIXTURES. <i>Detritus</i> , 2019 , Volume 08 - December 2019, 1	0.9	3
21	Influence of CaO/FeO ratio on the formation mechanism and properties of alkali-activated Fe-rich slags. <i>Cement and Concrete Research</i> , 2021 , 146, 106466	10.3	3
20	Recycling and valorization of glass fibre thermoset composite waste by cold incorporation into a sustainable inorganic polymer matrix. <i>Composites Part B: Engineering</i> , 2021 , 223, 109120	10	3
19	Experimental and Mathematical Simulation Study on the Granulation of a Modified Basic Oxygen Furnace Steel Slag. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 1260-1268	2.5	2
18	New Insights into the Mineralogy and Geochemistry of Sb Ores from Greece. <i>Minerals (Basel, Switzerland)</i> , 2020 , 10, 236	2.4	2

17	VALORISATION OF STAINLESS STEEL SLAGS AS A HYDRAULIC BINDER. <i>Acta Metallurgica Slovaca</i> , 2013 , 19, 176-183	2.1	2
16	Recovery of Rare Earths from Bauxite Residue (Red Mud). <i>World Scientific Series in Current Energy Issues</i> , 2019 , 343-356	0.2	2
15	Preface to the 5th International Slag Valorisation Symposium: From Fundamentals to Applications. <i>Journal of Sustainable Metallurgy</i> , 2018 , 4, 1-2	2.7	1
14	Bauxite Residue Valorization and Best Practices: Preface for the Thematic Section and Some of the Work to Follow. <i>Journal of Sustainable Metallurgy</i> , 2016 , 2, 313-315	2.7	1
13	Synthesis of Inorganic Polymers Using a CaO-Al ₂ O ₃ -FeO-SiO ₂ Slag. <i>Advances in Science and Technology</i> , 2014 , 92, 32-37	0.1	1
12	An integrated process for iron recovery and binder production from bauxite residue (red mud). <i>Materials Letters</i> , 2020 , 264, 127273	3.3	1
11	Micromechanical and microstructural analysis of Fe-rich plasma slag-based inorganic polymers. <i>Cement and Concrete Composites</i> , 2021 , 118, 103968	8.6	1
10	Properties of calcium aluminate blended cement incorporating iron-rich slag: Evolution over a curing period of 1 year. <i>Construction and Building Materials</i> , 2021 , 282, 122569	6.7	1
9	Revisiting the iron-rich Ordinary Portland cement towards valorisation of wastes: study of Fe-to-Al ratio on the clinker production and the hydration reaction. <i>Materials and Structures/Materiaux Et Constructions</i> , 2021 , 54, 1	3.4	1
8	High performance mortars from vitrified bauxite residue; the quest for the optimal chemistry and processing conditions. <i>Cement and Concrete Research</i> , 2022 , 155, 106739	10.3	1
7	H ₂ -Based Processes for Fe and Al Recovery from Bauxite Residue (Red Mud): Comparing the Options. <i>Materials Proceedings</i> , 2021 , 5, 45	0.3	0
6	Iron-rich slag addition in ternary binders of Portland cement, aluminate cement and calcium sulfate. <i>Cement and Concrete Research</i> , 2022 , 153, 106689	10.3	0
5	Forming zeolites and calcium silicate hydrates in Fe-rich, slag-based, porous inorganic polymers. <i>Cement and Concrete Research</i> , 2022 , 153, 106655	10.3	0
4	High-Temperature Behavior of CaO-FeO _x -Al ₂ O ₃ -SiO ₂ -Rich Alkali Activated Materials. <i>Applied Sciences (Switzerland)</i> , 2022 , 12, 2572	2.6	0
3	Alteration in molecular structure of alkali activated slag with various water to binder ratios under accelerated carbonation.. <i>Scientific Reports</i> , 2022 , 12, 5524	4.9	0
2	Scalable Synthesis of Acidic Mesostructured Silica/Carbon Nanocomposite Catalysts by Rotary Evaporation. <i>ChemCatChem</i> , 2017 , 9, 3-3	5.2	
1	The Use of Alkali Activated Materials in Nuclear Industry 2020 , 537-556		