Yiannis Pontikes

List of Publications by Year in Descending Order

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	Correlating the amorphous phase structure of vitrified bauxite residue (red mud) to the initial reactivity in binder systems. *Cement and Concrete Composites*, **2022**, 127, 104410	8.6	3
123	Iron-rich slag addition in ternary binders of Portland cement, aluminate cement and calcium sulfate. *Cement and Concrete Research*, **2022**, 153, 106689	10.3	0
122	Forming zeolites and calcium silicate hydrates in Fe-rich, slag-based, porous inorganic polymers. *Cement and Concrete Research*, **2022**, 153, 106655	10.3	0
121	High-Temperature Behavior of CaO-FeOx-Al2O3-SiO2-Rich Alkali Activated Materials. *Applied Sciences (Switzerland)*, **2022**, 12, 2572	2.6	0
120	Alteration in molecular structure of alkali activated slag with various water to binder ratios under accelerated carbonation.. *Scientific Reports*, **2022**, 12, 5524	4.9	0
119	High performance mortars from vitrified bauxite residue; the quest for the optimal chemistry and processing conditions. *Cement and Concrete Research*, **2022**, 155, 106739	10.3	1
118	H2-Based Processes for Fe and Al Recovery from Bauxite Residue (Red Mud): Comparing the Options. *Materials Proceedings*, **2021**, 5, 45	0.3	0
117	Micromechanical and microstructural analysis of Fe-rich plasma slag-based inorganic polymers. *Cement and Concrete Composites*, **2021**, 118, 103968	8.6	1
116	Properties of calcium aluminate blended cement incorporating iron-rich slag: Evolution over a curing period of 1 year. *Construction and Building Materials*, **2021**, 282, 122569	6.7	1
115	Rheology of an alkali-activated Fe-rich slag suspension: Identifying the impact of the activator chemistry and slag particle interactions. *Journal of Non-Crystalline Solids*, **2021**, 561, 120747	3.9	5
114	A new approach for the vitrification of municipal solid waste incinerator bottom ash by microwave irradiation. *Journal of Cleaner Production*, **2021**, 284, 124787	10.3	4
113	Porous glass-ceramics made from microwave vitrified municipal solid waste incinerator bottom ash. *Construction and Building Materials*, **2021**, 270, 121452	6.7	5
112	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. *Materials and Structures/Materiaux Et Constructions*, **2021**, 54, 1	3.4	1
111	Valorising Slags from Non-ferrous Metallurgy into Hybrid Cementitious Binders: Mix Design and Performance. *Waste and Biomass Valorization*, **2021**, 12, 4679	3.2	5
110	Boosting the use of bauxite residue (red mud) in cement - Production of an Fe-rich calciumsulfoaluminate-ferrite clinker and characterisation of the hydration. *Cement and Concrete Research*, **2021**, 145, 106463	10.3	9
109	Influence of CaO/FeO ratio on the formation mechanism and properties of alkali-activated Fe-rich slags. *Cement and Concrete Research*, **2021**, 146, 106466	10.3	3
108	Recycling and valorization of glass fibre thermoset composite waste by cold incorporation into a sustainable inorganic polymer matrix. *Composites Part B: Engineering*, **2021**, 223, 109120	10	3

107	The impact of slag fineness on the reactivity of blended cements with high-volume non-ferrous metallurgy slag. *Construction and Building Materials*, **2020**, 257, 119400	6.7	16
106	Near-zero-waste processing of low-grade, complex primary ores and secondary raw materials in Europe: technology development trends. *Resources, Conservation and Recycling*, **2020**, 160, 104919	11.9	57
105	The effect of high dose rate gamma irradiation on the curing of CaO-FexOy-SiO2 slag based inorganic polymers: Mechanical and microstructural analysis. *Journal of Nuclear Materials*, **2020**, 539, 152237	3.3	4
104	New Insights into the Mineralogy and Geochemistry of Sb Ores from Greece. *Minerals (Basel, Switzerland)*, **2020**, 10, 236	2.4	2
103	Geopolymers, inorganic polymers, alkali-activated materials and hybrid binders from bauxite residue (red mud) Putting things in perspective. *Journal of Cleaner Production*, **2020**, 258, 120610	10.3	36
102	Advances in alkali-activation of clay minerals. *Cement and Concrete Research*, **2020**, 132, 106050	10.3	66
101	Effect of NaOH content on hydration, mineralogy, porosity and strength in alkali/sulfate-activated binders from ground granulated blast furnace slag and phosphogypsum. *Cement and Concrete Research*, **2020**, 132, 106054	10.3	30
100	The Use of Alkali Activated Materials in Nuclear Industry **2020**, 537-556		
99	Reaction kinetics and structural analysis of alkali activated Fe Si Ca rich materials. *Journal of Cleaner Production*, **2020**, 246, 119065	10.3	11
98	Impact of the solidification path of FeOx SiO2 slags on the resultant inorganic polymers. *Journal of the American Ceramic Society*, **2020**, 103, 2173-2184	3.8	12
97	An integrated process for iron recovery and binder production from bauxite residue (red mud). *Materials Letters*, **2020**, 264, 127273	3.3	1
96	Radiological and leaching assessment of an ettringite-based mortar from ladle slag and phosphogypsum. *Cement and Concrete Research*, **2020**, 128, 105954	10.3	10
95	Unraveling the nano-structure of a glassy CaO-FeO-SiO2 slag by molecular dynamics simulations. *Journal of Non-Crystalline Solids*, **2020**, 528, 119771	3.9	9
94	Upcycling of non-ferrous metallurgy slags: Identifying the most reactive slag for inorganic polymer construction materials. *Resources, Conservation and Recycling*, **2020**, 154, 104627	11.9	17
93	The influence of porosity on radon emanation in alkali-activated mortars containing high volume bauxite residue. *Construction and Building Materials*, **2020**, 230, 116982	6.7	6
92	Understanding the leaching behavior of inorganic polymers made of iron rich slags. *Journal of Cleaner Production*, **2019**, 238, 117736	10.3	8
91	Radiological and non-radiological leaching assessment of alkali-activated materials containing ground granulated blast furnace slag and phosphogypsum. *Science of the Total Environment*, **2019**, 660, 1098-1107	10.2	9
90	Metakaolinite Phosphate Cementitious Matrix: Inorganic Polymer Obtained by Acidic Activation. *Materials*, **2019**, 12,	3.5	21

89	In-situ measurements of high-temperature dielectric properties of municipal solid waste incinerator bottom ash. *Ceramics International*, **2019**, 45, 18751-18759	5.1	10
88	Alkali-activated binders based on ground granulated blast furnace slag and phosphogypsum. *Construction and Building Materials*, **2019**, 215, 371-380	6.7	22
87	The effect of gamma radiation on the mechanical and microstructural properties of Fe-rich inorganic polymers. *Journal of Nuclear Materials*, **2019**, 521, 126-136	3.3	7
86	Experimental and Mathematical Simulation Study on the Granulation of a Modified Basic Oxygen Furnace Steel Slag. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2019**, 50, 1260-1268	2.5	2
85	Use of modified bauxite residue-based porous inorganic polymer monoliths as adsorbents of methylene blue. *Journal of Cleaner Production*, **2019**, 227, 877-889	10.3	35
84	Feasibility of incorporating phosphogypsum in ettringite-based binder from ladle slag. *Journal of Cleaner Production*, **2019**, 237, 117793	10.3	21
83	The influence of air and temperature on the reaction mechanism and molecular structure of Fe-silicate inorganic polymers. *Journal of Non-Crystalline Solids*, **2019**, 526, 119675	3.9	10
82	Inorganic Polymers From CaO-FeOx-SiO2 Slag: The Start of Oxidation of Fe and the Formation of a Mixed Valence Binder. *Frontiers in Materials*, **2019**, 6,	4	18
81	INCREASING THE DIMENSIONAL STABILITY OF CAO-FEOX-AL2O3-SIO2 ALKALI-ACTIVATED MATERIALS: ON THE SWELLING POTENTIAL OF CALCIUM OXIDE-RICH ADMIXTURES. *Detritus*, **2019**, Volume 08 - December 2019, 1	0.9	3
80	Recovery of Rare Earths from Bauxite Residue (Red Mud). *World Scientific Series in Current Energy Issues*, **2019**, 343-356	0.2	2
79	Shrinkage and Mitigation Strategies to Improve the Dimensional Stability of CaO-FeO-AlO-SiO Inorganic Polymers. *Materials*, **2019**, 12,	3.5	11
78	Modifications of basic-oxygen-furnace slag microstructure and their effect on the rheology and the strength of alkali-activated binders. *Cement and Concrete Composites*, **2019**, 97, 143-153	8.6	10
77	Kinetics of pore formation and resulting properties of lightweight inorganic polymers. *Journal of the American Ceramic Society*, **2019**, 102, 3940-3950	3.8	8
76	Byproduct-based ettringite binder □A synergy between ladle slag and gypsum. *Construction and Building Materials*, **2019**, 197, 143-151	6.7	24
75	Evaluating the material resource efficiency of secondary aluminium production: A Monte Carlo-based decision-support tool. *Journal of Cleaner Production*, **2019**, 215, 488-496	10.3	9
74	The Rare Earth Elements Potential of Greek Bauxite Active Mines in the Light of a Sustainable REE Demand. *Journal of Sustainable Metallurgy*, **2019**, 5, 20-47	2.7	22
73	Incorporating Cs and Sr into blast furnace slag inorganic polymers and their effect on matrix properties. *Journal of Nuclear Materials*, **2018**, 503, 1-12	3.3	13
72	Preface to the 5th International Slag Valorisation Symposium: From Fundamentals to Applications. *Journal of Sustainable Metallurgy*, **2018**, 4, 1-2	2.7	1

71	Silica□arbon Nanocomposite Acid Catalyst with Large Mesopore Interconnectivity by Vapor-Phase Assisted Hydrothermal Treatment. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 7859-7870	8.3	9
70	Inorganic polymers made of fayalite slag: On the microstructure and behavior of Fe. *Journal of the American Ceramic Society*, **2018**, 101, 2245-2257	3.8	30
69	Mix-design Parameters and Real-life Considerations in the Pursuit of Lower Environmental Impact Inorganic Polymers. *Waste and Biomass Valorization*, **2018**, 9, 879-889	3.2	32
68	Molecular structure of CaO□FeOx□SiO2 glassy slags and resultant inorganic polymer binders. *Journal of the American Ceramic Society*, **2018**, 101, 5846-5857	3.8	32
67	Identifying hotspots of environmental impact in the development of novel inorganic polymer paving blocks from bauxite residue. *Resources, Conservation and Recycling*, **2018**, 138, 87-98	11.9	23
66	Radon immobilization potential of alkali-activated materials containing ground granulated blast furnace slag and phosphogypsum. *Construction and Building Materials*, **2018**, 184, 68-75	6.7	15
65	Transformation of stainless steel slag toward a reactive cementitious binder. *Journal of the American Ceramic Society*, **2018**, 101, 1727-1736	3.8	11
64	The fate of iron during the alkali-activation of synthetic (CaO-)FeOx-SiO2 slags: An Fe K-edge XANES study. *Journal of the American Ceramic Society*, **2018**, 101, 2107-2118	3.8	24
63	Scalable Synthesis of Acidic Mesostructured Silica□arbon Nanocomposite Catalysts by Rotary Evaporation. *ChemCatChem*, **2017**, 9, 3-3	5.2	
62	Recovery of Rare Earths and Major Metals from Bauxite Residue (Red Mud) by Alkali Roasting, Smelting, and Leaching. *Journal of Sustainable Metallurgy*, **2017**, 3, 393-404	2.7	46
61	Mud2Metal: Lessons Learned on the Path for Complete Utilization of Bauxite Residue Through Industrial Symbiosis. *Journal of Sustainable Metallurgy*, **2017**, 3, 551-560	2.7	20
60	The influence of curing conditions on the mechanical properties and leaching of inorganic polymers made of fayalitic slag. *Frontiers of Chemical Science and Engineering*, **2017**, 11, 317-327	4.5	27
59	Transforming Enhanced Landfill Mining Derived Gasification/Vitrification Glass into Low-Carbon Inorganic Polymer Binders and Building Products. *Journal of Sustainable Metallurgy*, **2017**, 3, 405-415	2.7	22
58	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. *Journal of Environmental Radioactivity*, **2017**, 173, 97-101	2.4	8
57	Nano-mineralogy and -geochemistry of high-grade diasporic karst-type bauxite from Parnassos-Ghiona mines, Greece. *Ore Geology Reviews*, **2017**, 84, 228-244	3.2	27
56	Scalable Synthesis of Acidic Mesostructured Silica□arbon Nanocomposite Catalysts by Rotary Evaporation. *ChemCatChem*, **2017**, 9, 65-69	5.2	5
55	Progress and Prospects in the Field of Biomass and Waste to Energy and Added-Value Materials. *Waste and Biomass Valorization*, **2017**, 8, 1875-1884	3.2	23
54	Smelting of Bauxite Residue (Red Mud) in View of Iron and Selective Rare Earths Recovery. *Journal of Sustainable Metallurgy*, **2016**, 2, 28-37	2.7	94

53	Ladle metallurgy stainless steel slag as a raw material in Ordinary Portland Cement production: a possibility for industrial symbiosis. *Journal of Cleaner Production*, **2016**, 112, 872-881	10.3	49
52	Bauxite Residue Valorization and Best Practices: Preface for the Thematic Section and Some of the Work to Follow. *Journal of Sustainable Metallurgy*, **2016**, 2, 313-315	2.7	1
51	The role of nano-perovskite in the negligible thorium release in seawater from Greek bauxite residue (red mud). *Scientific Reports*, **2016**, 6, 21737	4.9	14
50	A Proposal for a 100 % Use of Bauxite Residue Towards Inorganic Polymer Mortar. *Journal of Sustainable Metallurgy*, **2016**, 2, 394-404	2.7	39
49	Comparative Analysis of Processes for Recovery of Rare Earths from Bauxite Residue. *Jom*, **2016**, 68, 2958-2962	2.1	15
48	Porous, Sintered Glass-Ceramics from Inorganic Polymers Based on Fayalite Slag. *Journal of the American Ceramic Society*, **2016**, 99, 1985-1991	3.8	17
47	Slag Valorisation as a Contribution to Zero-Waste Metallurgy. *Journal of Sustainable Metallurgy*, **2016**, 2, 1-2	2.7	4
46	Potassium-rich biomass ashes as activators in metakaolin-based inorganic polymers. *Applied Clay Science*, **2016**, 119, 401-409	5.2	50
45	Shielding effectiveness of construction materials. *International Journal of Applied Electromagnetics and Mechanics*, **2016**, 52, 137-144	0.4	4
44	Selective recovery of rare earths from bauxite residue by combination of sulfation, roasting and leaching. *Minerals Engineering*, **2016**, 92, 151-159	4.9	109
43	Recovery of Rare Earths and Other Valuable Metals From Bauxite Residue (Red Mud): A Review. *Journal of Sustainable Metallurgy*, **2016**, 2, 365-386	2.7	149
42	Cooperative Catalysis for Multistep Biomass Conversion with Sn/Al Beta Zeolite. *ACS Catalysis*, **2015**, 5, 928-940	13.1	137
41	Towards zero-waste valorisation of rare-earth-containing industrial process residues: a critical review. *Journal of Cleaner Production*, **2015**, 99, 17-38	10.3	349
40	Early Age Microstructural Transformations of an Inorganic Polymer Made of Fayalite Slag. *Journal of the American Ceramic Society*, **2015**, 98, 2269-2277	3.8	35
39	New perspectives and issues arising from the introduction of (NORM) residues in building materials: A critical assessment on the radiological behaviour. *Construction and Building Materials*, **2015**, 82, 323-331	6.7	45
38	Inorganic Polymers from a Plasma Convertor Slag: Effect of Activating Solution on Microstructure and Properties. *Journal of Sustainable Metallurgy*, **2015**, 1, 240-251	2.7	31
37	Confinement Effects in Lewis Acid-Catalyzed Sugar Conversion: Steering Toward Functional Polyester Building Blocks. *ACS Catalysis*, **2015**, 5, 5803-5811	13.1	52
36	Post-synthesis Sn□An exploration of synthesis parameters and catalysis. *Journal of Catalysis*, **2015**, 330, 545-557	7.3	75

35	Alkali Activation of AOD Stainless Steel Slag Under Steam Curing Conditions. *Journal of the American Ceramic Society*, **2015**, 98, 3062-3074	3.8	11
34	Leaching of rare earths from bauxite residue (red mud). *Minerals Engineering*, **2015**, 76, 20-27	4.9	280
33	Cementitious binders from activated stainless steel refining slag and the effect of alkali solutions. *Journal of Hazardous Materials*, **2015**, 286, 211-9	12.8	48
32	Inorganic Polymer Cement from Fe-Silicate Glasses: Varying the Activating Solution to Glass Ratio. *Waste and Biomass Valorization*, **2014**, 5, 411-428	3.2	34
31	Effect of curing temperatures on the alkali activation of crystalline continuous casting stainless steel slag. *Construction and Building Materials*, **2014**, 71, 308-316	6.7	38
30	Effect of accelerated carbonation on AOD stainless steel slag for its valorisation as a CO2-sequestering construction material. *Chemical Engineering Journal*, **2014**, 246, 39-52	14.7	104
29	Synthesis of Inorganic Polymers Using a CaO-Al2O3-FeO-SiO2 Slag. *Advances in Science and Technology*, **2014**, 92, 32-37	0.1	1
28	Cementitious Binders Incorporating Residues **2014**, 219-229		5
27	Hydraulic Behavior of Mechanically and Chemically Activated Synthetic Merwinite. *Journal of the American Ceramic Society*, **2014**, 97, 3973-3981	3.8	10
26	Magnetic Glass Ceramics by Sintering of Borosilicate Glass and Inorganic Waste. *Materials*, **2014**, 7, 5565-5580	3.1	17
25	Investigating the binding potential of continuous casting stainless steel slag by alkali activation. *Advances in Cement Research*, **2014**, 26, 256-270	1.8	7
24	Influence of mechanical and chemical activation on the hydraulic properties of gamma dicalcium silicate. *Cement and Concrete Research*, **2014**, 55, 59-68	10.3	49
23	Stabilisation and Microstructural Modification of Stainless Steel Converter Slag by Addition of an Alumina Rich By-Product. *Waste and Biomass Valorization*, **2014**, 5, 343-353	3.2	12
22	Synthesis, characterization and properties of calcium ferroaluminate belite cements produced with electric arc furnace steel slag as raw material. *Cement and Concrete Composites*, **2013**, 44, 1-8	8.6	43
21	Effect of High Cooling Rates on the Mineralogy and Hydraulic Properties of Stainless Steel Slags. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2013**, 44, 1173-1184	2.5	38
20	Bauxite residue in cement and cementitious applications: Current status and a possible way forward. *Resources, Conservation and Recycling*, **2013**, 73, 53-63	11.9	106
19	Productive sugar isomerization with highly active Sn in dealuminated zeolites. *Green Chemistry*, **2013**, 15, 2777	10	195
18	Characterization of landfilled materials: screening of the enhanced landfill mining potential. *Journal of Cleaner Production*, **2013**, 55, 72-83	10.3	152

17	Integrated Mineral Carbonation Reactor Technology for Sustainable Carbon Dioxide Sequestration: CO2 Energy Reactor. *Energy Procedia*, **2013**, 37, 5884-5891	2.3	24
16	Slags with a high Al and Fe content as precursors for inorganic polymers. *Applied Clay Science*, **2013**, 73, 93-102	5.2	71
15	Enhanced Landfill Mining in view of multiple resource recovery: a critical review. *Journal of Cleaner Production*, **2013**, 55, 45-55	10.3	224
14	On a new hydraulic binder from stainless steel converter slag. *Advances in Cement Research*, **2013**, 25, 21-31	1.8	8
13	VALORISATION OF STAINLESS STEEL SLAGS AS A HYDRAULIC BINDER. *Acta Metallurgica Slovaca*, **2013**, 19, 176-183	2.1	2
12	Effect of mechanical activation on the hydraulic properties of stainless steel slags. *Cement and Concrete Research*, **2012**, 42, 778-788	10.3	103
11	Valorisation of electric arc furnace steel slag as raw material for low energy belite cements. *Journal of Hazardous Materials*, **2011**, 196, 287-94	12.8	70
10	Valorisation of different types of boron-containing wastes for the production of lightweight aggregates. *Journal of Hazardous Materials*, **2011**, 185, 1381-9	12.8	20
9	Classical and alternative fuel mix optimization in cement production using mathematical programming. *Fuel*, **2011**, 90, 1277-1284	7.1	18
8	Evolution of microstructure, mineralogy and properties during firing of clay-based ceramics with borates. *Ceramics International*, **2010**, 36, 567-575	5.1	14
7	Effect of firing temperature and atmosphere on ceramics made of NW Peloponnese clay sediments. Part I: Reaction paths, crystalline phases, microstructure and colour. *Journal of the European Ceramic Society*, **2010**, 30, 1841-1851	6	67
6	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. *Journal of the European Ceramic Society*, **2010**, 30, 1853-1866	6	37
5	Sintered esseneite wollastonite plagioclase glass ceramics from vitrified waste. *Journal of the European Ceramic Society*, **2009**, 29, 2921-2927	6	45
4	Effect of firing temperature and atmosphere on sintering of ceramics made from Bayer process bauxite residue. *Ceramics International*, **2009**, 35, 401-407	5.1	52
3	Use of boron wastes in the production of heavy clay ceramics. *Ceramics International*, **2009**, 35, 447-452	5.1	63
2	Thermal behaviour of clays for traditional ceramics with soda lime silica waste glass admixture. *Journal of the European Ceramic Society*, **2007**, 27, 1657-1663	6	42
1	Thermal behaviour of clay mixtures with bauxite residue for the production of heavy-clay ceramics. *Journal of the European Ceramic Society*, **2007**, 27, 1645-1649	6	61