

# Raffaele Cioffi

## List of Publications by Year in descending order

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113  
papers

4,745  
citations

71061

41  
h-index

102432

66  
g-index

113  
all docs

113  
docs citations

113  
times ranked

3825  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coal fly ash as raw material for the manufacture of geopolymer-based products. <i>Waste Management</i> , 2008, 28, 416-423.	3.7	266
2	Recycling of MSWI fly ash by means of cementitious double step cold bonding pelletization: Technological assessment for the production of lightweight artificial aggregates. <i>Journal of Hazardous Materials</i> , 2015, 299, 181-191.	6.5	187
3	Optimization of geopolymer synthesis by calcination and polycondensation of a kaolinitic residue. <i>Resources, Conservation and Recycling</i> , 2003, 40, 27-38.	5.3	163
4	Soluble salt removal from MSWI fly ash and its stabilization for safer disposal and recovery as road basement material. <i>Waste Management</i> , 2012, 32, 1179-1185.	3.7	149
5	Mechanical and thermal properties of lightweight geopolymer composites. <i>Cement and Concrete Composites</i> , 2018, 86, 266-272.	4.6	140
6	Thermally treated clay sediments as geopolymer source material. <i>Applied Clay Science</i> , 2015, 107, 195-204.	2.6	134
7	Manufacture of artificial aggregate using MSWI bottom ash. <i>Waste Management</i> , 2011, 31, 281-288.	3.7	133
8	Use of geopolymers for composite external reinforcement of RC members. <i>Composites Part B: Engineering</i> , 2013, 45, 1667-1676.	5.9	115
9	Recycled polyolefins waste as aggregates for lightweight concrete. <i>Composites Part B: Engineering</i> , 2016, 106, 234-241.	5.9	114
10	A system approach in energy evaluation of different renewable energies sources integration in ammonia production plants. <i>Renewable Energy</i> , 2016, 99, 472-482.	4.3	113
11	Novel hybrid organic-geopolymer materials. <i>Applied Clay Science</i> , 2013, 73, 42-50.	2.6	112
12	Potential application of ettringite generating systems for hazardous waste stabilization. <i>Journal of Hazardous Materials</i> , 1996, 51, 241-252.	6.5	104
13	Recycling of Pre-Washed Municipal Solid Waste Incinerator Fly Ash in the Manufacturing of Low Temperature Setting Geopolymer Materials. <i>Materials</i> , 2013, 6, 3420-3437.	1.3	97
14	Application-Oriented Chemical Optimization of a Metakaolin Based Geopolymer. <i>Materials</i> , 2013, 6, 1920-1939.	1.3	92
15	Use of Cement Kiln Dust, Blast Furnace Slag and Marble Sludge in the Manufacture of Sustainable Artificial Aggregates by Means of Cold Bonding Pelletization. <i>Materials</i> , 2013, 6, 3139-3159.	1.3	88
16	Mechanical Performances of Weathered Coal Fly Ash Based Geopolymer Bricks. <i>Procedia Engineering</i> , 2011, 21, 745-752.	1.2	86
17	Life cycle assessment of recycled concretes: A case study in southern Italy. <i>Science of the Total Environment</i> , 2018, 615, 1506-1517.	3.9	85
18	Simultaneous adsorption of chlorophenol and heavy metal ions on organophilic bentonite. <i>Applied Clay Science</i> , 2006, 31, 126-133.	2.6	84

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19	Reuse of mining waste as aggregates in fly ash-based geopolymers. <i>Journal of Cleaner Production</i> , 2019, 220, 65-73.	4.6	81
20	A Mechanochemical Approach to Porous Silicon Nanoparticles Fabrication. <i>Materials</i> , 2011, 4, 1023-1033.	1.3	80
21	Preparation and Characterization of New Geopolymer-Epoxy Resin Hybrid Mortars. <i>Materials</i> , 2013, 6, 2989-3006.	1.3	80
22	Treatment and recycling of asbestos-cement containing waste. <i>Journal of Hazardous Materials</i> , 2011, 195, 391-397.	6.5	79
23	Pre-treatments of MSWI fly-ashes: a comprehensive review to determine optimal conditions for their reuse and/or environmentally sustainable disposal. <i>Reviews in Environmental Science and Biotechnology</i> , 2019, 18, 453-471.	3.9	77
24	Low temperature alkaline activation of weathered fly ash: Influence of mineral admixtures on early age performance. <i>Construction and Building Materials</i> , 2015, 86, 169-177.	3.2	69
25	Synergistic recycling of calcined clayey sediments and water potabilization sludge as geopolymer precursors: Upscaling from binders to precast paving cement-free bricks. <i>Construction and Building Materials</i> , 2017, 133, 14-26.	3.2	68
26	Lightweight geopolymer-based hybrid materials. <i>Composites Part B: Engineering</i> , 2017, 128, 225-237.	5.9	68
27	Coal Combustion Wastes Reuse in Low Energy Artificial Aggregates Manufacturing. <i>Materials</i> , 2013, 6, 5000-5015.	1.3	66
28	Recycling of Clay Sediments for Geopolymer Binder Production. A New Perspective for Reservoir Management in the Framework of Italian Legislation: The Occhito Reservoir Case Study. <i>Materials</i> , 2014, 7, 5603-5616.	1.3	65
29	Preparation, structure and properties of hybrid materials based on geopolymers and polysiloxanes. <i>Materials and Design</i> , 2015, 87, 82-94.	3.3	63
30	Innovative Fly Ash Geopolymer-Epoxy Composites: Preparation, Microstructure and Mechanical Properties. <i>Materials</i> , 2016, 9, 461.	1.3	59
31	TiO <sub>2</sub> -Based Photocatalytic Geopolymers for Nitric Oxide Degradation. <i>Materials</i> , 2016, 9, 513.	1.3	59
32	Energy-saving cements obtained from chemical gypsum and other industrial wastes. <i>Waste Management</i> , 1996, 16, 231-235.	3.7	57
33	Binders alternative to Portland cement and waste management for sustainable construction – part 1. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2018, 16, 186-202.	0.7	57
34	Eco-efficient industrial waste recycling for the manufacturing of fibre reinforced innovative geopolymer mortars: Integrated waste management and green product development through LCA. <i>Journal of Cleaner Production</i> , 2021, 312, 127777.	4.6	54
35	Synthesis and Characterization of Novel Epoxy Geopolymer Hybrid Composites. <i>Materials</i> , 2013, 6, 3943-3962.	1.3	53
36	Matrix stability and leaching behaviour in ettringite-based stabilization systems doped with heavy metals. <i>Waste Management</i> , 1998, 17, 535-540.	3.7	52

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37	Entropy-Stabilized Oxides owning Fluorite Structure obtained by Hydrothermal Treatment. <i>Materials</i> , 2020, 13, 558.	1.3	52
38	Synthesis and Characterizations of Melamine-Based Epoxy Resins. <i>International Journal of Molecular Sciences</i> , 2013, 14, 18200-18214.	1.8	50
39	Geopolymer-based hybrid foams: Lightweight materials from a sustainable production process. <i>Journal of Cleaner Production</i> , 2020, 250, 119588.	4.6	48
40	Adsorption of chlorophenol, chloroaniline and methylene blue on fuel oil fly ash. <i>Journal of Hazardous Materials</i> , 2008, 157, 599-604.	6.5	46
41	Binders alternative to Portland cement and waste management for sustainable construction " Part 2. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2018, 16, 207-221.	0.7	45
42	Eco-sustainable Geopolymer Concrete Blocks Production Process. <i>Agriculture and Agricultural Science Procedia</i> , 2016, 8, 408-418.	0.6	43
43	Fabrication and characterization of graphite-cement composites for microbial fuel cells applications. <i>Materials Research Bulletin</i> , 2017, 88, 188-199.	2.7	38
44	Sustainable management of water potabilization sludge by means of geopolymers production. <i>Journal of Cleaner Production</i> , 2019, 229, 1-9.	4.6	37
45	Glass-ceramics from fly ash with added Li <sub>2</sub> O. <i>Journal of the European Ceramic Society</i> , 1994, 13, 143-148.	2.8	36
46	Cold-bonding process for treatment and reuse of waste materials: Technical designs and applications of pelletized products. <i>Critical Reviews in Environmental Science and Technology</i> , 2021, 51, 2197-2231.	6.6	36
47	Gadolinium-doped ceria nanopowders synthesized by urea-based homogeneous co-precipitation (UBHP). <i>Materials Chemistry and Physics</i> , 2017, 187, 149-155.	2.0	35
48	Disposal of Lead-Containing Zeolite Sludges in Cement Matrix. <i>Environmental Technology (United Kingdom)</i> , 1996, 17, 1215-1224.	1.2	34
49	Evaluation of Mechanical and Leaching Properties of Cement-Based Solidified Materials Encapsulating Cd-Exchanged Natural Zeolites. <i>Environmental Technology (United Kingdom)</i> , 1996, 17, 1215-1224.	1.2	33
50	Environmental and technological effectiveness of a process for the stabilization of a galvanic sludge. <i>Journal of Hazardous Materials</i> , 2002, 89, 165-175.	6.5	33
51	An environmental evaluation: A comparison between geopolymer and OPC concrete paving blocks manufacturing process in Italy. <i>Environmental Progress and Sustainable Energy</i> , 2016, 35, 1699-1708.	1.3	32
52	Diffuse Reflectance Infrared Fourier Transform Spectroscopy for the Determination of Asbestos Species in Bulk Building Materials. <i>Materials</i> , 2014, 7, 457-470.	1.3	31
53	Strategies for the valorization of soil waste by geopolymer production: An overview. <i>Journal of Cleaner Production</i> , 2021, 288, 125646.	4.6	31
54	Influence of chemical and physical properties of Italian fly ashes on reactivity towards lime, phosphogypsum and water. <i>Cement and Concrete Research</i> , 1988, 18, 91-102.	4.6	28

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55	Influence of Lithium on the Sintering Behavior and Electrical Properties of Ce <sub>0.8</sub> Gd <sub>0.2</sub> O <sub>1.9</sub> for Intermediate-Temperature Solid Oxide Fuel Cells. Energy Technology, 2016, 4, 409-416.	1.8	28
56	Multi-criteria analysis for Life Cycle Assessment and Life Cycle Costing of lightweight artificial aggregates from industrial waste by double-step cold bonding palletization. Journal of Cleaner Production, 2022, 351, 131395.	4.6	28
57	Stabilization of chloro-organics using organophilic bentonite in a cement-blast furnace slag matrix. Waste Management, 2001, 21, 651-660.	3.7	27
58	Characterization of Early Age Curing and Shrinkage of Metakaolin-Based Inorganic Binders with Different Rheological Behavior by Fiber Bragg Grating Sensors. Materials, 2018, 11, 10.	1.3	27
59	Finite Element Method Modeling of Sensible Heat Thermal Energy Storage with Innovative Concretes and Comparative Analysis with Literature Benchmarks. Energies, 2014, 7, 5291-5316.	1.6	25
60	Hybrid Geopolymeric Foams for the Removal of Metallic Ions from Aqueous Waste Solutions. Materials, 2019, 12, 4091.	1.3	22
61	Innovative Materials in Italy for Eco-Friendly and Sustainable Buildings. Materials, 2021, 14, 2048.	1.3	22
62	Relationship between gypsum content, porosity and strength in cement. I. Effect of SO <sub>3</sub> on the physical microstructure of Portland cement mortars. Cement and Concrete Research, 1991, 21, 120-126.	4.6	19
63	SHIELDING EFFECTIVENESS TESTS OF LOW-COST CIVIL ENGINEERING MATERIALS IN A REVERBERATING CHAMBER. Progress in Electromagnetics Research B, 2013, 54, 227-243.	0.7	19
64	Hybrid Geopolymers from Fly Ash and Polysiloxanes. Molecules, 2019, 24, 3510.	1.7	19
65	Use of a Metal Organic Framework for the Adsorptive Removal of Gaseous HCl: A New Approach for a Challenging Task. ACS Applied Materials & Interfaces, 2018, 10, 14271-14275.	4.0	18
66	Chromium-based MIL-101 metal organic framework as a fully regenerable D4 adsorbent for biogas purification. Renewable Energy, 2019, 138, 230-235.	4.3	18
67	Hybrid Fly Ash-Based Geopolymeric Foams: Microstructural, Thermal and Mechanical Properties. Materials, 2020, 13, 2919.	1.3	18
68	Use of Unbound Materials for Sustainable Road Infrastructures. Applied Sciences (Switzerland), 2020, 10, 3465.	1.3	18
69	Clay sediment geopolymerization by means of alkali metal aluminate activation. RSC Advances, 2015, 5, 107662-107669.	1.7	17
70	Electrical and Microstructural Characterization of Ceramic Gadolinium-Doped Ceria Electrolytes for ITSOFCs by Sol-Gel Route. Journal of Applied Biomaterials and Functional Materials, 2016, 14, 35-41.	0.7	17
71	Cement Stabilization of Tannery Sludge Using Quaternary Ammonium Salt Exchanged Bentonite as Pre-Solidification Adsorbent. Environmental Technology (United Kingdom), 2002, 23, 1051-1062.	1.2	16
72	Characterization of Geopolymer Materials Containing MSWI Fly Ash and Coal Fly Ash. Advances in Science and Technology, 0, , .	0.2	16

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73	A Case Study for the Deactivation and Regeneration of a V <sub>2</sub> O <sub>5</sub> -WO <sub>3</sub> /TiO <sub>2</sub> Catalyst in a Tail-End SCR Unit of a Municipal Waste Incineration Plant. <i>Catalysts</i> , 2019, 9, 464.	1.6	15
74	The Improvement of Durability of Reinforced Concretes for Sustainable Structures: A Review on Different Approaches. <i>Materials</i> , 2022, 15, 2728.	1.3	15
75	Effect of the mineralizer solution in the hydrothermal synthesis of gadolinium-doped (10% mol Gd) ceria nanopowders. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2016, 14, 0-0.	0.7	14
76	Cementitious mixtures containing industrial process wastes suitable for the manufacture of preformed building elements. <i>Journal of Chemical Technology and Biotechnology</i> , 1994, 59, 243-247.	1.6	13
77	Adsorption of the Organic Fraction of a Tannery Sludge by Means of Organophilic Bentonite. <i>Environmental Technology (United Kingdom)</i> , 2001, 22, 83-89.	1.2	13
78	Glass-ceramic from fly ash with added MgO and TiO <sub>2</sub> . <i>Journal of the European Ceramic Society</i> , 1994, 14, 517-521.	2.8	12
79	Chemical, physical and radiological evaluation of raw materials and geopolymers for building applications. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2020, 325, 435-445.	0.7	12
80	Fibre-Reinforced Geopolymer Concretes for Sensible Heat Thermal Energy Storage: Simulations and Environmental Impact. <i>Materials</i> , 2021, 14, 414.	1.3	12
81	DTA study of the hydration of systems of interest in the field of building materials manufacture. <i>Journal of Thermal Analysis</i> , 1992, 38, 761-770.	0.7	11
82	Evaluation of Solid Waste Stabilization Processes by Means of Leaching Tests. <i>Environmental Technology (United Kingdom)</i> , 1996, 17, 309-315.	1.2	11
83	Feasibility of Manufacturing Building Materials by Recycling a Waste from Ion Exchange Process. <i>Environmental Technology (United Kingdom)</i> , 1998, 19, 1145-1150.	1.2	11
84	Geopolymerization Ability of Natural and Secondary Raw Materials by Solubility Test in Alkaline Media. <i>Environments - MDPI</i> , 2017, 4, 56.	1.5	10
85	Effect of Mechanochemical Processing on Adsorptive Properties of Blast Furnace Slag. <i>Journal of Environmental Engineering, ASCE</i> , 2013, 139, 1446-1453.	0.7	9
86	New Insights in the Hydrothermal Synthesis of Rare-Earth Carbonates. <i>Materials</i> , 2019, 12, 2062.	1.3	9
87	TG, FT-IR and NMR characterization of n-C <sub>16</sub> H <sub>34</sub> contaminated alumina and silica after mechanochemical treatment. <i>Chemosphere</i> , 2008, 70, 1068-1076.	4.2	8
88	Fiber Bragg Grating Sensors for Real Time Monitoring of Early Age Curing and Shrinkage of Different Metakaolin-Based Inorganic Binders. <i>IEEE Sensors Journal</i> , 2019, 19, 6173-6180.	2.4	8
89	An in-depth multi-technique characterization of rare earth carbonates "RE <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub> ·2H <sub>2</sub> O" owning tengerite-type structure. <i>Journal of Rare Earths</i> , 2022, 40, 1281-1290.	2.5	8
90	LCA of concrete with construction and demolition waste. , 2020, , 501-513.		6

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91	Quantitative determination of calcium hydroxide in the presence of calcium silicate hydrates. Comparison between chemical extraction and thermal analysis. Journal of Materials Science Letters, 1985, 4, 475-478.	0.5	5
92	Reuse of secondary lead smelter slag in the manufacture of concrete blocks. Waste Management Series, 2000, 1, 741-749.	0.0	4
93	Fiber Bragg grating sensors as a tool to evaluate the influence of filler on shrinkage of geopolymer matrices. Proceedings of SPIE, 2015, , .	0.8	4
94	Potential application of coalâ€œfuel oil ash for the manufacture of building materials. Journal of Hazardous Materials, 2005, 124, 101-106.	6.5	3
95	Environmental Friendly Lightweight Artificial Aggregates through Industrial Waste Stabilization. Key Engineering Materials, 0, 913, 143-147.	0.4	3
96	DTA study of the influence of lime content of low-calcium fly ashes on the pozzolanic reaction. Thermochemica Acta, 1989, 145, 87-92.	1.2	2
97	The influence of heavy metals on the hydration of binders of interest for chemical gypsum stabilisation. Thermochemica Acta, 1990, 162, 107-116.	1.2	2
98	Effect of an Acetic Acid/Sodium Acetate Buffered Leachant on Ettringite-Based Stabilizing Matrices. Environmental Technology (United Kingdom), 2000, 21, 815-818.	1.2	2
99	Measurement of temperature and early age shrinkage of alkali activated metakaolin using fiber Bragg grating sensors. , 2014, , .		2
100	Assessment of innovative fiber-reinforced alkali-activated concrete. , 2022, , 523-539.		2
101	Opportunities and future challenges of geopolymer mortars for sustainable development. , 2022, , 661-686.		2
102	On permeation effects of aqueous solutions through non-mature pastes of portland-pozzolana cement. Cement and Concrete Research, 1989, 19, 189-193.	4.6	1
103	Life-Cycle Impact of Concrete With Recycled Materials. , 2020, , 414-421.		1
104	Development of Cementitious Products Using Industrial Process Wastes as Sources of Reactive Sulfate and Alumina. Studies in Environmental Science, 1994, 60, 579-588.	0.0	1
105	Amino-Functionalized, Chromium-Based Metal Organic Framework as a Potential High Performance Adsorbent for Hydrogen Chloride. Advanced Science Letters, 2017, 23, 6010-6011.	0.2	1
106	Environmental Assessment of Concretes Containing Construction and Demolition Waste. Key Engineering Materials, 0, 913, 131-135.	0.4	1
107	Climate Change Impact Assessment of Geopolymer Mortars. Key Engineering Materials, 0, 919, 210-217.	0.4	1
108	A discussion of the paper â€œcarbonation and porosity of mortar specimens with pozzolanic and hydraulic cement admixturesâ€œby Ch. Malami, V. Kaloidas, G. Batis and N. Kouloumbi. Cement and Concrete Research, 1995, 25, 1803-1804.	4.6	0

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109	Heavy metal stabilization by means of innovative alumino-silicate matrix. Environmental Technology (United Kingdom), 2003, 24, 641-651.	1.2	0
110	Characterization of Raw and Stabilized Waste in Relation to Toxic Metals Mobility in Realistic Landfilling Scenarios. Annali Di Chimica, 2005, 95, 823-832.	0.6	0
111	COMPARATIVE ANALYSIS ON MONOLITHIC DENOX CATALYSTS. WIT Transactions on Ecology and the Environment, 2018, , .	0.0	0
112	On the properties of sustainable concrete containing mineral admixtures. , 2022, , 475-488.		0
113	Eco-Friendly Concretes with Recycled Plastic Aggregates. Key Engineering Materials, 0, 913, 137-142.	0.4	0