Ana FernÃ¡ndez-JimÃ©nez

List of Publications by Year
in descending order

146 papers	20,711 citations	20817 60 h-index	10734 138 g-index
148 all docs	148 docs citations	148 times ranked	6423 citing authors

#	Article	IF	Citations
1	Geopolymer technology: the current state of the art. Journal of Materials Science, 2007, 42, 2917-2933.	3.7	3,163
2	New cements for the 21st century: The pursuit of an alternative to Portland cement. Cement and Concrete Research, 2011, 41, 750-763.	11.0	1,106
3	Compatibility studies between N-A-S-H and C-A-S-H gels. Study in the ternary diagram Na2Oâ€“CaOâ€“Al2O3â€“SiO2â€“H2O. Cement and Concrete Research, 2011, 41, 923-931.	11.0	837
4	Composition and microstructure of alkali activated fly ash binder: Effect of the activator. Cement and Concrete Research, 2005, 35, 1984-1992.	11.0	788
5	Microstructure development of alkali-activated fly ash cement: a descriptive model. Cement and Concrete Research, 2005, 35, 1204-1209.	11.0	601
6	Characterisation of fly ashes. Potential reactivity as alkaline cementsâ˜†. Fuel, 2003, 82, 2259-2265.	6.4	541
7	Effect of alkalis on fresh Câ€“Sâ€“H gels. FTIR analysis. Cement and Concrete Research, 2009, 39, 147-153.	11.0	508
8	Alkali activation of fly ash: Effect of the SiO2/Na2O ratio. Microporous and Mesoporous Materials, 2007, 106, 180-191.	4.4	500
9	Alkali-activated slag mortars. Cement and Concrete Research, 1999, 29, 1313-1321.	11.0	479
10	Alkali activation of fly ashes. Part 1: Effect of curing conditions on the carbonation of the reaction products. Fuel, 2005, 84, 2048-2054.	6.4	456
11	Mid-infrared spectroscopic studies of alkali-activated fly ash structure. Microporous and Mesoporous Materials, 2005, 86, 207-214.	4.4	452
12	The role played by the reactive alumina content in the alkaline activation of fly ashes. Microporous and Mesoporous Materials, 2006, 91, 111-119.	4.4	444
13	Durability of alkali-activated fly ash cementitious materials. Journal of Materials Science, 2007, 42, 3055-3065.	3.7	442
14	An XRD study of the effect of the SiO2/Na2O ratio on the alkali activation of fly ash. Cement and Concrete Research, 2007, 37, 671-679.	11.0	394
15	FTIR study of the solâ€“gel synthesis of cementitious gels: Câ€“Sâ€“H and Nâ€“Aâ€“Sâ€“H. Journal of Sol-Gel Science and Technology, 2008, 45, 63-72.	2.4	390
16	Alkaline Activation of Fly Ashes: NMR Study of the Reaction Products. Journal of the American Ceramic Society, 2004, 87, 1141-1145.	3.8	368
17	Structure of Calcium Silicate Hydrates Formed in Alkalineâ€Activated Slag: Influence of the Type of Alkaline Activator. Journal of the American Ceramic Society, 2003, 86, 1389-1394.	3.8	349
18	Mineralogical and microstructural characterisation of alkali-activated fly ash/slag pastes. Cement and Concrete Composites, 2003, 25, 287-292.	10.7	331

#	Article	IF	Citations
19	Alkali-activated fly ash: Effect of thermal curing conditions on mechanical and microstructural development â€“ Part II. Fuel, 2007, 86, 315-322.	6.4	321
20	A review on alkaline activation: new analytical perspectives. Materiales De Construccion, 2014, 64, e022.	0.7	299
21	Stabilization/solidification of hazardous and radioactive wastes with alkali-activated cements. Journal of Hazardous Materials, 2006, 137, 1656-1663.	12.4	297
22	Pore solution in alkali-activated slag cement pastes. Relation to the composition and structure of calcium silicate hydrate. Cement and Concrete Research, 2004, 34, 139-148.	11.0	287
23	Mechanical and durable behaviour of alkaline cement mortars reinforced with polypropylene fibres. Cement and Concrete Research, 2003, 33, 2031-2036.	11.0	265
24	Variation in hybrid cements over time. Alkaline activation of fly ashâ€“portland cement blends. Cement and Concrete Research, 2013, 52, 112-122.	11.0	243
25	Quantitative determination of phases in the alkali activation of fly ash. Part I. Potential ash reactivity. Fuel, 2006, 85, 625-634.	6.4	224
26	Opc-fly ash cementitious systems: study of gel binders produced during alkaline hydration. Journal of Materials Science, 2007, 42, 2958-2966.	3.7	221
27	Effect on fresh C-S-H gels of the simultaneous addition of alkali and aluminium. Cement and Concrete Research, 2010, 40, 27-32.	11.0	221
28	Alkaliâ€“aggregate reaction in activated fly ash systems. Cement and Concrete Research, 2007, 37, 175-183.	11.0	203
29	Effect of the SiO2/Na2O ratio on the alkali activation of fly ash. Part II: 29Si MAS-NMR Survey. Microporous and Mesoporous Materials, 2008, 109, 525-534.	4.4	200
30	Effect of activator mix on the hydration and strength behaviour of alkali-activated slag cements. Advances in Cement Research, 2003, 15, 129-136.	1.6	197
31	Effect of Calcium Additions on Nâ€“Aâ€“Sâ€“H Cementitious Gels. Journal of the American Ceramic Society, 2010, 93, 1934-1940.	3.8	196
32	Quantitative determination of phases in the alkaline activation of fly ash. Part II: Degree of reaction. Fuel, 2006, 85, 1960-1969.	6.4	181
33	Setting of alkali-activated slag cement. Influence of activator nature. Advances in Cement Research, 2001, 13, 115-121.	1.6	167
34	Alkali-activated slag cements: Kinetic studies. Cement and Concrete Research, 1997, 27, 359-368.	11.0	157
35	Hydration kinetics in hybrid binders: Early reaction stages. Cement and Concrete Composites, 2013, 39, 82-92.	10.7	152
36	Alkaline activation of metakaolinâ€“fly ash mixtures: Obtain of Zeoceramics and Zeocements. Microporous and Mesoporous Materials, 2008, 108, 41-49.	4.4	150

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37	New Cementitious Materials Based on Alkaliâ€Activated Fly Ash: Performance at High Temperatures. Journal of the American Ceramic Society, 2008, 91, 3308-3314.	3.8	149
38	Corrosion resistance in activated fly ash mortars. Cement and Concrete Research, 2005, 35, 1210-1217.	11.0	147
39	Alkali activation of fly ash. Part III: Effect of curing conditions on reaction and its graphical description. Fuel, 2010, 89, 3185-3192.	6.4	139
40	Alkaline solution/binder ratio as a determining factor in the alkaline activation of aluminosilicates. Cement and Concrete Research, 2012, 42, 1242-1251.	11.0	139
41	Alkali activated fly ash: effect of admixtures on paste rheology. Rheologica Acta, 2009, 48, 447-455.	2.4	135
42	Very High Volume Fly Ash Cements. Early Age Hydration Study Using <scp><scp>Na</scp></scp>₂<scp><scp>SO</scp></scp>₄ as an Activator. Journal of the American Ceramic Society, 2013, 96, 900-906.	3.8	125
43	A study on the passive state stability of steel embedded in activated fly ash mortars. Corrosion Science, 2008, 50, 1058-1065.	6.6	122
44	Sustainable alkali activated materials: Precursor and activator derived from industrial wastes. Journal of Cleaner Production, 2017, 162, 1200-1209.	9.3	117
45	The alkaliâ€“silica reaction in alkali-activated granulated slag mortars with reactive aggregate. Cement and Concrete Research, 2002, 32, 1019-1024.	11.0	114
46	Manufacture of hybrid cements with fly ash and bottom ash from a municipal solid waste incinerator. Construction and Building Materials, 2016, 105, 218-226.	7.2	112
47	Hydration of Hybrid Alkaline Cement Containing a Very Large Proportion of Fly Ash: A Descriptive Model. Materials, 2016, 9, 605.	2.9	106
48	Immobilization of cesium in alkaline activated fly ash matrix. Journal of Nuclear Materials, 2005, 346, 185-193.	2.7	87
49	Clay reactivity: Production of alkali activated cements. Applied Clay Science, 2013, 73, 11-16.	5.2	87
50	Title is missing!. Magyar AprÃ³vad KÃ¶zlemÃ©nyek, 1998, 52, 945-955.	1.4	86
51	An overview of the chemistry of alkali-activated cement-based binders. , 2015, , 19-47.		82
52	Morteros de cementos alcalinos. Resistencia quÃmica al ataque por sulfatos y al agua de mar. Materiales De Construccion, 2002, 52, 55-71.	0.7	82
53	Durability of very high volume fly ash cement pastes and mortars in aggressive solutions. Cement and Concrete Composites, 2013, 38, 12-20.	10.7	78
54	Effect of temperature and alkaline concentration on metakaolin leaching kinetics. Ceramics International, 2014, 40, 8975-8985.	4.8	77

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55	Highâ€Temperature Resistance in Alkaliâ€Activated Cement. Journal of the American Ceramic Society, 2010, 93, 3411-3417.	3.8	74
56	C4A3Å hydration in different alkaline media. Cement and Concrete Research, 2013, 46, 41-49.	11.0	74
57	High temperature resistance of a very high volume fly ash cement paste. Cement and Concrete Composites, 2014, 45, 234-242.	10.7	71
58	Effect of sodium sulfate on the alkali activation of fly ash. Cement and Concrete Composites, 2010, 32, 589-594.	10.7	67
59	Stabilisation of construction and demolition waste with a high fines content using alkali activated fly ash. Construction and Building Materials, 2018, 170, 26-39.	7.2	67
60	Corrosion behaviour of a new low-nickel stainless steel embedded in activated fly ash mortars. Cement and Concrete Composites, 2011, 33, 644-652.	10.7	65
61	Rheology of activated phosphorus slag with lime and alkaline salts. Cement and Concrete Research, 2018, 113, 121-129.	11.0	64
62	Mechanical behaviour at high temperature of alkali-activated aluminosilicates (geopolymers). Construction and Building Materials, 2015, 93, 1188-1196.	7.2	60
63	Effect of superplasticisers on the behaviour and properties of alkaline cements. Advances in Cement Research, 2003, 15, 23-28.	1.6	59
64	Effect of relative humidity on the reaction products of alkali activated fly ash. Journal of the European Ceramic Society, 2012, 32, 2799-2807.	5.7	58
65	Fixing Arsenic in Alkali-Activated Cementitious Matrices. Journal of the American Ceramic Society, 2005, 88, 1122-1126.	3.8	57
66	Hybrid binders: A journey from the past to a sustainable future (opus caementicium futurum). Cement and Concrete Research, 2019, 124, 105829.	11.0	57
67	"Geopolimeros": una Ãºnica base quÃmica y diferentes microestructuras. Materiales De Construccion, 2004, 54, 77-91.	0.7	57
68	Alkaline Hydration Of C₂S and C₃S. Journal of the American Ceramic Society, 2016, 99, 604-611.	3.8	56
69	Effect of alkalis content on calcium sulfoaluminate (CSA) cement hydration. Cement and Concrete Research, 2020, 128, 105953.	11.0	55
70	Alkaline Activation of Blends of Metakaolin and Calcium Aluminate. Journal of the American Ceramic Society, 2008, 91, 1231-1236.	3.8	54
71	Alkaline activation of synthetic aluminosilicate glass. Ceramics International, 2014, 40, 5547-5558.	4.8	52
72	Hydration mechanisms of hybrid cements as a function of the way of addition of chemicals. Journal of the American Ceramic Society, 2019, 102, 427-436.	3.8	52

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73	Properties of alkali-activated fly ashes determined from rheological measurements. Advances in Cement Research, 2005, 17, 143-151.	1.6	51
74	Effect of Sodium Silicate on Calcium Aluminate Cement Hydration in Highly Alkaline Media: A Microstructural Characterization. Journal of the American Ceramic Society, 2011, 94, 1297-1303.	3.8	51
75	Railway sleepers made of alkali activated fly ash concrete. Revista Ingenieria De Construccion, 2007, 22, .	0.4	49
76	C₃S and C₂S hydration in the presence of Na₂CO₃ and Na₂SO₄. Journal of the American Ceramic Society, 2017, 100, 3188-3198.	3.8	48
77	Portland Versus Alkaline Cement: Continuity or Clean Break: â€œA Key Decision for Global Sustainabilityâ€• Frontiers in Chemistry, 2021, 9, 705475.	3.6	48
78	Alkali-activated blends of calcium aluminate cement and slag/diatomite. Ceramics International, 2013, 39, 9237-9245.	4.8	44
79	Characterisation of pre-industrial hybrid cement and effect of pre-curing temperature. Cement and Concrete Composites, 2016, 73, 281-288.	10.7	43
80	Microstructural characterisation of alkali-activated PFA matrices for waste immobilisation. Cement and Concrete Composites, 2004, 26, 1001-1006.	10.7	42
81	â€œMetakaolinâ€Slagâ€Clinker Blends.â€•The Role of Na⁺ or K⁺ as Alkaline Activators of Theses Ternary Blends. Journal of the American Ceramic Society, 2013, 96, 1991-1998.	3.8	41
82	Binder Chemistry â€“ High-Calcium Alkali-Activated Materials. RILEM State-of-the-Art Reports, 2014, , 59-91.	0.7	41
83	Synthesis and thermal behavior of different aluminosilicate gels. Journal of Non-Crystalline Solids, 2006, 352, 2061-2066.	3.1	38
84	Reuse of waste sandstone sludge via alkali activation in matrices of fly ash and metakaolin. Construction and Building Materials, 2018, 172, 212-223.	7.2	38
85	Application of alkali-activated industrial wastes for the stabilisation of a full-scale (sub)base layer. Journal of Cleaner Production, 2020, 242, 118427.	9.3	38
86	The Early Age Hydration Reactions of a Hybrid Cement Containing a Very High Content of Coal Bottom Ash. Journal of the American Ceramic Society, 2014, 97, 929-937.	3.8	37
87	Alkaline Hydration of Tricalcium Aluminate. Journal of the American Ceramic Society, 2012, 95, 3317-3324.	3.8	35
88	Effect of calcium on the alkaline activation of aluminosilicate glass. Ceramics International, 2016, 42, 7697-7707.	4.8	32
89	Mechanical-Chemical Activation of Coal Fly Ashes: An Effective Way for Recycling and Make Cementitious Materials. Frontiers in Materials, 2019, 6, .	2.4	32
90	Alkali activated composites â€“ An innovative concept using iron and steel slag as both precursor and aggregate. Cement and Concrete Composites, 2019, 103, 11-21.	10.7	32

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91	<scp><scp>C</scp></scp>â€“<scp><scp>S</scp></scp>â€“<scp><scp>H</scp></scp> Gels: Interpretation of ²⁹<scp><scp>Si </scp><scp>MAS</scp></scp>â€<scp><scp>NMR</scp></scp> Spectra. Journal of the American Ceramic Society, 2012, 95, 1440-1446.	3.8	31
92	Calcium sulfoaluminate clinker hydration at different alkali concentrations. Cement and Concrete Research, 2020, 138, 106251.	11.0	31
93	The role of aluminium in alkali-activated bentonites. Materials and Structures/Materiaux Et Constructions, 2015, 48, 585-597.	3.1	30
94	Synthesis of alkaline cements based on fly ash and metallurgic slag: Optimisation of the SiO2/Al2O3 and Na2O/SiO2 molar ratios using the response surface methodology. Construction and Building Materials, 2019, 213, 424-433.	7.2	30
95	Replacing fly ash with limestone dust in hybrid cements. Construction and Building Materials, 2020, 243, 118169.	7.2	30
96	Sustainable alkaline activation of fly ash, aluminium anodising sludge and glass powder blends with a recycled alkaline cleaning solution. Construction and Building Materials, 2019, 204, 609-620.	7.2	28
97	Application of the response surface method to optimize alkali activated cements based on low-reactivity ladle furnace slag. Construction and Building Materials, 2020, 264, 120271.	7.2	28
98	Nanostructure/microstructure of fly ash geopolymers. , 2009, , 89-117.		27
99	An assessment of Mercury immobilisation in alkali activated fly ash (AAFA) cements. Journal of Hazardous Materials, 2012, 213-214, 207-215.	12.4	27
100	Crucial insights on the mix design of alkali-activated cement-based binders. , 2015, , 49-73.		25
101	Alternative prime materials for developing new cements: Alkaline activation of alkali aluminosilicate glasses. Ceramics International, 2016, 42, 9333-9340.	4.8	25
102	Use of clays in alkaline hybrid cement preparation. The role of bentonites. Materials Letters, 2018, 233, 134-137.	2.6	25
103	Cements with a low clinker content: versatile use of raw materials. Journal of Sustainable Cement-Based Materials, 2015, 4, 140-151.	3.1	24
104	Binder Chemistry â€“ Low-Calcium Alkali-Activated Materials. RILEM State-of-the-Art Reports, 2014, , 93-123.	0.7	23
105	Estabilidad del estado pasivo del acero en morteros de ceniza volante activada. Materiales De Construccion, 2010, 60, 51-65.	0.7	22
106	Influencia de la concentraciÃ³n del activador sobre la cinÃ©tica del proceso de activaciÃ³n alcalina de una escoria de alto horno. Materiales De Construccion, 1997, 47, 31-42.	0.7	21
107	Recycling and Application of Mine Tailings in Alkali-Activated Cements and Mortarsâ€”Strength Development and Environmental Assessment. Applied Sciences (Switzerland), 2020, 10, 2084.	2.5	18
108	ActivaciÃ³n alcalina de cenizas volantes. Estudio comparativo entre activadores sÃ³dicos y potÃ¡sicos. Materiales De Construccion, 2006, 56, .	0.7	18

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109	Use of industrial by-products as alkaline cement activators. Construction and Building Materials, 2020, 253, 119000.	7.2	16
110	Factores que afectan al desarrollo inicial de resistencias a compresiÃ³n en hormigones de ceniza volante activados alcalinamente (sin OPC). Materiales De Construccion, 2007, 57, .	0.7	16
111	Effect of Synthesis pH on the Preparation and Properties of K-Al-Bearing Silicate Gels from Solution. Journal of the Ceramic Society of Japan, 2006, 114, 624-629.	1.3	15
112	Chemical durability of geopolymers. , 2009, , 167-193.		15
113	Recycling Industrial By-Products in Hybrid Cements: Mechanical and Microstructure Characterization. Waste and Biomass Valorization, 2017, 8, 1433-1440.	3.4	15
114	One-part hybrid cements from fly ash and electric arc furnace slag activated by sodium sulphate or sodium chloride. Journal of Building Engineering, 2021, 44, 103298.	3.4	13
115	Stability of Synthetic Calcium Silicate Hydrate Gels in Presence of Alkalis, Aluminum, and Soluble Silica. Transportation Research Record, 2010, 2142, 52-57.	1.9	12
116	Specific Examples of Hybrid Alkaline Cement. MATEC Web of Conferences, 2014, 11, 01001.	0.2	12
117	Hybrid Alkaline Cements: Bentonite-Opc Binders. Minerals (Basel, Switzerland), 2018, 8, 137.	2.0	12
118	Alkali-Activated Cements from Urban, Mining and Agro-Industrial Waste: State-of-the-art and Opportunities. Waste and Biomass Valorization, 2021, 12, 2665-2683.	3.4	12
119	Durability and Testing â€“ Degradation via Mass Transport. RILEM State-of-the-Art Reports, 2014, , 223-276.	0.7	12
120	Effect of high temperatures on the mechanical behaviour of hybrid cement. Materiales De Construccion, 2020, 70, 213.	0.7	12
121	Effect of Alkaline Salts on Calcium Sulfoaluminate Cement Hydration. Molecules, 2021, 26, 1938.	3.8	11
122	Effect of alkalinity on early-age hydration in calcium sulfoaluminate clinker. Cement and Concrete Research, 2022, 155, 106781.	11.0	11
123	Effect of Alkali Concentration on the Activation of Carbonate-High Illite Clay. Applied Sciences (Switzerland), 2020, 10, 2203.	2.5	10
124	Study on the activation of ternesite in CaOÂ·Al2O3 and 12CaOÂ·7Al2O3 blends with gypsum for the development of low-CO2 binders. Journal of Cleaner Production, 2021, 291, 125726.	9.3	10
125	Monitoring early hydration of calcium sulfoaluminate clinker. Construction and Building Materials, 2021, 295, 123578.	7.2	10
126	Alkali-activated based concrete. , 2013, , 439-487.		8

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127	Cementos de escorias activados alcalinamente. DeterminaciÃ³n del grado de reacciÃ³n. Materiales De Construccion, 2001, 51, 53-66.	0.7	8
128	Stabilisation of a Plastic Soil with Alkali Activated Cements Developed from Industrial Wastes. Sustainability, 2021, 13, 4501.	3.2	7
129	ActivaciÃ³n alcalina de metacaolÃn. Efecto de la adiciÃ³n de silicato soluble y de la temperatura de curado. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2008, 47, 35-43.	1.9	6
130	Some durability aspects of hybrid alkaline cements. MATEC Web of Conferences, 2014, 11, 01008.	0.2	5
131	ZnO Nanoparticles for Photocatalytic Application in Alkali-Activated Materials. Molecules, 2020, 25, 5519.	3.8	5
132	Effect of activator mix on the hydration and strength behaviour of alkali-activated slag cements. Advances in Cement Research, 2003, 15, 129-136.	1.6	5
133	Fusion of phosphate by-products and glass waste for preparation of alkali-activated binders. Composites Part B: Engineering, 2022, 242, 110044.	12.0	5
134	Statistical Analysis of the Influence of Several Factors on Compressive Strength of Alkali Activated Fly Ash. Procedia Structural Integrity, 2017, 5, 1116-1122.	0.8	4
135	Studies About the Hydration of Hybrid â€œAlkaline-Beliteâ€•Cement. Frontiers in Materials, 2019, 6, .	2.4	4
136	Low-Calcium, Porous, Alkali-Activated Materials as Novel pH Stabilizers for Water Media. Minerals (Basel, Switzerland), 2020, 10, 935.	2.0	4
137	Iron and Aluminium Production Wastes as Exclusive Components of Alkali Activated Bindersâ€”Towards a Sustainable Alternative. Sustainability, 2021, 13, 9938.	3.2	4
138	Setting of alkali-activated slag cement. Influence of activator nature. Advances in Cement Research, 2001, 13, 115-121.	1.6	4
139	Development of New Cementitious Caterials by Alkaline Activating Industrial by-Products. IOP Conference Series: Materials Science and Engineering, 2015, 96, 012005.	0.6	3
140	The Effect of Heat Treatment on Alkali Activated Materials. Medziagotyra, 2017, 23, .	0.2	2
141	HidrataciÃ³n del cemento de aluminato de calcio en condiciones de muy elevada alcalinidad. Materiales De Construccion, 2009, 59, .	0.7	2
142	A statistical approach to the study of concrete carbonation. Materiales De Construccion, 2014, 64, e001.	0.7	2
143	Effect of superplasticisers on the behaviour and properties of alkaline cements. Advances in Cement Research, 2003, 15, 23-28.	1.6	2
144	Statistical Study of Curing Conditions in Alkali Activation of Mine Tailings. Environmental Geotechnics, 2019, , 1-13.	2.3	1

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145	Fly Ash Based Geocements: Genesis of Microstructure and Properties at Hydration-Dehydration Process. , 2006, , 55-64.		0
146	Cements with low Clinker Content. IOP Conference Series: Materials Science and Engineering, 2015, 96, 012006.	0.6	0