

Susan A Bernal

List of Publications by Year in descending order

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papers

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23567

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#	ARTICLE	IF	CITATIONS
1	Binary alkali-activated systems obtained by the valorisation of calcined kaolin sludge and bottom ash. <i>Advances in Cement Research</i> , 2022, 34, 67-79.	1.6	4
2	Time-resolved 3D characterisation of early-age microstructural development of Portland cement. <i>Journal of Materials Science</i> , 2022, 57, 4952-4969.	3.7	4
3	Clay calcination technology: state-of-the-art review by the RILEM TC 282-CCL. <i>Materials and Structures/Materiaux Et Constructions</i> , 2022, 55, 1.	3.1	71
4	Report of RILEM TC 267-TRM phase 2: optimization and testing of the robustness of the R3 reactivity tests for supplementary cementitious materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2022, 55, 1.	3.1	29
5	Circular Economy strategies for concrete: implementation and integration. <i>Journal of Cleaner Production</i> , 2022, 362, 132486.	9.3	54
6	Characterization of and Structural Insight into Struvite-K, $\text{MgKPO}_4 \cdot 6\text{H}_2\text{O}$, an Analogue of Struvite. <i>Inorganic Chemistry</i> , 2021, 60, 195-205.	4.0	29
7	Applicability discussion for multi-peak Gaussian model of corrosion layer at steel/concrete interfaces. <i>Materials and Structures/Materiaux Et Constructions</i> , 2021, 54, 1.	3.1	6
8	Temperature transformation of blended magnesium potassium phosphate cement binders. <i>Cement and Concrete Research</i> , 2021, 141, 106332.	11.0	25
9	Activator Anion Influences the Nanostructure of Alkali-Activated Slag Cements. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20727-20739.	3.1	23
10	Incorporation of strontium and calcium in geopolymer gels. <i>Journal of Hazardous Materials</i> , 2020, 382, 121015.	12.4	71
11	RILEM TC 247-DTA round robin test: sulfate resistance, alkali-silica reaction and freeze-thaw resistance of alkali-activated concretes. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	3.1	30
12	Understanding the carbonation of concrete with supplementary cementitious materials: a critical review by RILEM TC 281-CCC. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	3.1	123
13	Thermodynamic modelling of phase evolution in alkali-activated slag cements exposed to carbon dioxide. <i>Cement and Concrete Research</i> , 2020, 136, 106158.	11.0	56
14	RILEM TC 247-DTA round robin test: carbonation and chloride penetration testing of alkali-activated concretes. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	3.1	51
15	Modelling chloride transport in alkali-activated slags. <i>Cement and Concrete Research</i> , 2020, 130, 106011.	11.0	20
16	Advances in alkali-activation of clay minerals. <i>Cement and Concrete Research</i> , 2020, 132, 106050.	11.0	201
17	Alkali aluminosilicate geopolymers as binders to encapsulate strontium-selective titanate ion-exchangers. <i>Dalton Transactions</i> , 2019, 48, 12116-12126.	3.3	25
18	RILEM TC 247-DTA round robin test: mix design and reproducibility of compressive strength of alkali-activated concretes. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019, 52, 1.	3.1	53

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19	Supplementary cementitious materials: New sources, characterization, and performance insights. Cement and Concrete Research, 2019, 122, 257-273.	11.0	521
20	Thermodynamic modelling of BFS-PC cements under temperature conditions relevant to the geological disposal of nuclear wastes. Cement and Concrete Research, 2019, 119, 21-35.	11.0	17
21	Layered double hydroxides modify the reaction of sodium silicate-activated slag cements. Green Materials, 2019, 7, 52-60.	2.1	8
22	Freeze-thaw resistance of steel fibre reinforced rubberised concrete. Construction and Building Materials, 2019, 195, 450-458.	7.2	65
23	Exploiting in-situ solid-state NMR spectroscopy to probe the early stages of hydration of calcium aluminate cement. Solid State Nuclear Magnetic Resonance, 2019, 99, 1-6.	2.3	25
24	Slag-Based Cements That Resist Damage Induced by Carbon Dioxide. ACS Sustainable Chemistry and Engineering, 2018, 6, 5067-5075.	6.7	39
25	Mechanical performance of steel fibre reinforced rubberised concrete for flexible concrete pavements. Construction and Building Materials, 2018, 172, 533-543.	7.2	84
26	Phase Formation and Evolution in $Mg(OH)_2$ -Zeolite Cements. Industrial & Engineering Chemistry Research, 2018, 57, 2105-2113.	3.7	12
27	Influence of slag composition on the stability of steel in alkali-activated cementitious materials. Journal of Materials Science, 2018, 53, 5016-5035.	3.7	45
28	Phase evolution of slag-rich cementitious grouts for immobilisation of nuclear wastes. Advances in Cement Research, 2018, 30, 345-360.	1.6	13
29	Response to the discussion by Hongyan Ma and Ying Li of the paper "Characterization of magnesium potassium phosphate cement blended with fly ash and ground granulated blast furnace slag". Cement and Concrete Research, 2018, 103, 249-253.	11.0	18
30	Slag and Activator Chemistry Control the Reaction Kinetics of Sodium Metasilicate-Activated Slag Cements. Sustainability, 2018, 10, 4709.	3.2	47
31	Blast furnace slag- $Mg(OH)_2$ cements activated by sodium carbonate. RSC Advances, 2018, 8, 23101-23118.	3.6	38
32	Durability of steel fibre reinforced rubberised concrete exposed to chlorides. Construction and Building Materials, 2018, 188, 130-142.	7.2	71
33	Structural Ordering of Aged and Hydrothermally Cured Metakaolin Based Potassium Geopolymers. RILEM Bookseries, 2018, , 232-237.	0.4	2
34	Phase diagrams for alkali-activated slag binders. Cement and Concrete Research, 2017, 95, 30-38.	11.0	155
35	Outcomes of the RILEM round robin on degree of reaction of slag and fly ash in blended cements. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	3.1	101
36	Structural evolution of synthetic alkali-activated $CaO-MgO-Na_2O-Al_2O_3-SiO_2$ materials is influenced by Mg content. Cement and Concrete Research, 2017, 99, 155-171.	11.0	73

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37	Uptake of chloride and carbonate by Mg-Al and Ca-Al layered double hydroxides in simulated pore solutions of alkali-activated slag cement. Cement and Concrete Research, 2017, 100, 1-13.	11.0	224
38	Chloride-induced corrosion of steel rebars in simulated pore solutions of alkali-activated concretes. Cement and Concrete Research, 2017, 100, 385-397.	11.0	148
39	Evaluation of the potential improvement in the environmental footprint of geopolymers using waste-derived activators. Journal of Cleaner Production, 2017, 166, 680-689.	9.3	132
40	Chloride binding and mobility in sodium carbonate-activated slag pastes and mortars. Materials and Structures/Materiaux Et Constructions, 2017, 50, 252.	3.1	52
41	Reproducible mini-slump test procedure for measuring the yield stress of cementitious pastes. Materials and Structures/Materiaux Et Constructions, 2017, 50, 235.	3.1	88
42	Characterization of supplementary cementitious materials by thermal analysis. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	3.1	64
43	Bubble stabilisation improves strength of lightweight mortars. Proceedings of Institution of Civil Engineers: Construction Materials, 2017, 170, 134-140.	1.1	4
44	Alternative inorganic binders based on alkali-activated metallurgical slags. , 2017, , 185-220.		15
45	Microstructural Changes Induced by CO2 Exposure in Alkali-Activated Slag/Metakaolin Pastes. Frontiers in Materials, 2016, 3, .	2.4	18
46	Production and hydration of calcium sulfoaluminate-belite cements derived from aluminium anodising sludge. Construction and Building Materials, 2016, 122, 373-383.	7.2	91
47	Management and valorisation of wastes through use in producing alkali-activated cement materials. Journal of Chemical Technology and Biotechnology, 2016, 91, 2365-2388.	3.2	121
48	Alkali-activation potential of biomass-coal co-fired fly ash. Cement and Concrete Composites, 2016, 73, 62-74.	10.7	46
49	Gamma irradiation resistance of early age Ba(OH) ₂ -Na ₂ SO ₄ -slag cementitious grouts. Journal of Nuclear Materials, 2016, 482, 266-277.	2.7	13
50	Alkali-activated slag cements produced with a blended sodium carbonate/sodium silicate activator. Advances in Cement Research, 2016, 28, 262-273.	1.6	78
51	Structural evolution of an alkali sulfate activated slag cement. Journal of Nuclear Materials, 2016, 468, 97-104.	2.7	118
52	Valorisation of a kaolin mining waste for the production of geopolymers. Journal of Cleaner Production, 2016, 115, 265-272.	9.3	75
53	Controlling the reaction kinetics of sodium carbonate-activated slag cements using calcined layered double hydroxides. Cement and Concrete Research, 2016, 81, 24-37.	11.0	213
54	Gamma irradiation resistance of an early age slag-blended cement matrix for nuclear waste encapsulation. Journal of Materials Research, 2015, 30, 1563-1571.	2.6	26

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55	Editorial introduction â€“ Journal of Sustainable Cement-Based Materials special issue on chemically activated materials. Journal of Sustainable Cement-Based Materials, 2015, 4, 73-73.	3.1	0
56	Milestones in the analysis of alkali-activated binders. Journal of Sustainable Cement-Based Materials, 2015, 4, 74-84.	3.1	15
57	Identification of the hydrate gel phases present in phosphate-modified calcium aluminate binders. Cement and Concrete Research, 2015, 70, 21-28.	11.0	39
58	Physical characterization methods for supplementary cementitious materials. Materials and Structures/Materiaux Et Constructions, 2015, 48, 3675-3686.	3.1	40
59	What Happens to 5 Year Old Metakaolin Geopolymersâ€™ the Effect of Alkali Cation. RILEM Bookseries, 2015, , 315-321.	0.4	5
60	Thermodynamic modelling of alkali-activated slag cements. Applied Geochemistry, 2015, 61, 233-247.	3.0	160
61	Characterisation of magnesium potassium phosphate cements blended with fly ash and ground granulated blast furnace slag. Cement and Concrete Research, 2015, 74, 78-87.	11.0	234
62	Structure and properties of binder gels formed in the system $Mg(OH)_2 \cdot SiO_2 \cdot H_2O$ for immobilisation of Magnox sludge. Dalton Transactions, 2015, 44, 8126-8137.	3.3	102
63	Effect of the activator dose on the compressive strength and accelerated carbonation resistance of alkali silicate-activated slag/metakaolin blended materials. Construction and Building Materials, 2015, 98, 217-226.	7.2	92
64	Microstructure and durability of alkali-activated materials as key parameters for standardization. Journal of Sustainable Cement-Based Materials, 2015, 4, 116-128.	3.1	59
65	The Role of Al in Cross-Linking of Alkali-Activated Slag Cements. Journal of the American Ceramic Society, 2015, 98, 996-1004.	3.8	181
66	One-Part Geopolymers Based on Thermally Treated Red Mud/NaOH Blends. Journal of the American Ceramic Society, 2015, 98, 5-11.	3.8	184
67	Determination of particle size, surface area, and shape of supplementary cementitious materials by different techniques. Materials and Structures/Materiaux Et Constructions, 2015, 48, 3687-3701.	3.1	95
68	Accelerated carbonation testing of alkali-activated slag/metakaolin blended concretes: effect of exposure conditions. Materials and Structures/Materiaux Et Constructions, 2015, 48, 653-669.	3.1	79
69	Role of carbonates in the chemical evolution of sodium carbonate-activated slag binders. Materials and Structures/Materiaux Et Constructions, 2015, 48, 517-529.	3.1	186
70	Performance at high temperature of alkali-activated slag pastes produced with silica fume and rice husk ash based activators. Materiales De Construccion, 2015, 65, e049.	0.7	60
71	Other Potential Applications for Alkali-Activated Materials. RILEM State-of-the-Art Reports, 2014, , 339-379.	0.7	11
72	Modification of phase evolution in alkali-activated blast furnace slag by the incorporation of fly ash. Cement and Concrete Composites, 2014, 45, 125-135.	10.7	806

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73	Natural carbonation of aged alkali-activated slag concretes. Materials and Structures/Materiaux Et Constructions, 2014, 47, 693-707.	3.1	114
74	Durability of Alkali-Activated Materials: Progress and Perspectives. Journal of the American Ceramic Society, 2014, 97, 997-1008.	3.8	320
75	MgO content of slag controls phase evolution and structural changes induced by accelerated carbonation in alkali-activated binders. Cement and Concrete Research, 2014, 57, 33-43.	11.0	334
76	The fate of iron in blast furnace slag particles during alkali-activation. Materials Chemistry and Physics, 2014, 146, 1-5.	4.0	36
77	A thermodynamic model for C-(N-)A-S-H gel: CNASH _{ss} . Derivation and validation. Cement and Concrete Research, 2014, 66, 27-47.	11.0	186
78	Characterisation of Ba(OH) ₂ •Na ₂ SO ₄ •blast furnace slag cement-like composites for the immobilisation of sulfate bearing nuclear wastes. Cement and Concrete Research, 2014, 66, 64-74.	11.0	38
79	Distinctive microstructural features of aged sodium silicate-activated slag concretes. Cement and Concrete Research, 2014, 65, 41-51.	11.0	80
80	Corrosion of steel bars induced by accelerated carbonation in low and high calcium fly ash geopolymer concretes. Construction and Building Materials, 2014, 61, 79-89.	7.2	148
81	Geopolymers and Related Alkali-Activated Materials. Annual Review of Materials Research, 2014, 44, 299-327.	9.3	908
82	Binder Chemistry • High-Calcium Alkali-Activated Materials. RILEM State-of-the-Art Reports, 2014, , 59-91.	0.7	41
83	Binder Chemistry • Blended Systems and Intermediate Ca Content. RILEM State-of-the-Art Reports, 2014, , 125-144.	0.7	26
84	Durability and Testing • Chemical Matrix Degradation Processes. RILEM State-of-the-Art Reports, 2014, , 177-221.	0.7	6
85	Durability and Testing • Degradation via Mass Transport. RILEM State-of-the-Art Reports, 2014, , 223-276.	0.7	12
86	Generalized Structural Description of Calcium•Sodium Aluminosilicate Hydrate Gels: The Cross-Linked Substituted Tobermorite Model. Langmuir, 2013, 29, 5294-5306.	3.5	383
87	Microstructural changes in alkali activated fly ash/slag geopolymers with sulfate exposure. Materials and Structures/Materiaux Et Constructions, 2013, 46, 361-373.	3.1	270
88	Gel nanostructure in alkali-activated binders based on slag and fly ash, and effects of accelerated carbonation. Cement and Concrete Research, 2013, 53, 127-144.	11.0	593
89	Effect of nanosilica-based activators on the performance of an alkali-activated fly ash binder. Cement and Concrete Composites, 2013, 35, 1-11.	10.7	142
90	Influence of fly ash on the water and chloride permeability of alkali-activated slag mortars and concretes. Construction and Building Materials, 2013, 48, 1187-1201.	7.2	390

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91	Drying-induced changes in the structure of alkali-activated pastes. Journal of Materials Science, 2013, 48, 3566-3577.	3.7	150
92	Geopolymers based on spent catalyst residue from a fluid catalytic cracking (FCC) process. Fuel, 2013, 109, 493-502.	6.4	66
93	Nanostructural characterization of geopolymers by advanced beamline techniques. Cement and Concrete Composites, 2013, 36, 56-64.	10.7	33
94	High-Resolution X-ray Diffraction and Fluorescence Microscopy Characterization of Alkali-Activated Slag-Metakaolin Binders. Journal of the American Ceramic Society, 2013, 96, 1951-1957.	3.8	79
95	Development, Standardization, and Applications of Alkali-activated Concretes. , 2013, , 196-212.		9
96	Performance of alkali-activated slag mortars exposed to acids. Journal of Sustainable Cement-Based Materials, 2012, 1, 138-151.	3.1	90
97	Accelerated carbonation testing of alkali-activated binders significantly underestimates service life: The role of pore solution chemistry. Cement and Concrete Research, 2012, 42, 1317-1326.	11.0	247
98	Comment on E. Prud'Homme et al., "Structural characterization of geomaterial foams" Thermal behavior. J. Non-Cryst. Solids, 2011. Journal of Non-Crystalline Solids, 2012, 358, 715-716.	3.1	1
99	Dilatometry of geopolymers as a means of selecting desirable fly ash sources. Journal of Non-Crystalline Solids, 2012, 358, 1930-1937.	3.1	63
100	Structure of Portland Cement Pastes Blended with Sonicated Silica Fume. Journal of Materials in Civil Engineering, 2012, 24, 1295-1304.	2.9	25
101	Activation of Metakaolin/Slag Blends Using Alkaline Solutions Based on Chemically Modified Silica Fume and Rice Husk Ash. Waste and Biomass Valorization, 2012, 3, 99-108.	3.4	168
102	Performance of refractory aluminosilicate particle/fiber-reinforced geopolymer composites. Composites Part B: Engineering, 2012, 43, 1919-1928.	12.0	111
103	Engineering and durability properties of concretes based on alkali-activated granulated blast furnace slag/metakaolin blends. Construction and Building Materials, 2012, 33, 99-108.	7.2	304
104	Desempeño a temperaturas altas de morteros y hormigones basados en mezclas de escoria/metacaolín activadas alcalinamente. Materiales De Construccion, 2012, 62, 471-488.	0.7	35
105	Mechanical and thermal characterisation of geopolymers based on silicate-activated metakaolin/slag blends. Journal of Materials Science, 2011, 46, 5477-5486.	3.7	306
106	Evolution of binder structure in sodium silicate-activated slag-metakaolin blends. Cement and Concrete Composites, 2011, 33, 46-54.	10.7	513
107	Effect of binder content on the performance of alkali-activated slag concretes. Cement and Concrete Research, 2011, 41, 1-8.	11.0	370
108	Effect of silicate modulus and metakaolin incorporation on the carbonation of alkali silicate-activated slags. Cement and Concrete Research, 2010, 40, 898-907.	11.0	341

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109	High-Resolution Nanoprobe X-ray Fluorescence Characterization of Heterogeneous Calcium and Heavy Metal Distributions in Alkali-Activated Fly Ash. Langmuir, 2009, 25, 11897-11904.	3.5	66
110	Steel corrosion in reinforced alkali-activated materials. RILEM Technical Letters, 0, 2, 33-39.	0.0	42
111	Advances in near-neutral salts activation of blast furnace slags. RILEM Technical Letters, 0, 1, 39.	0.0	5