

Hydration of tricalcium aluminate (C₃A) in the presence of water studied by Raman spectroscopy and X-ray diffraction

Journal of Materials Chemistry

16, 1263

DOI: 10.1039/b509904h

Citation Report

#	ARTICLE	IF	CITATIONS
1	In situ Raman analysis of hydrating C3A and C4AF pastes in presence and absence of sulphate. <i>Advances in Applied Ceramics</i> , 2006, 105, 209-216.	0.6	67
2	SEM-SCA: combined SEM-Raman spectrometer for analysis of OPC clinker. <i>Advances in Applied Ceramics</i> , 2007, 106, 327-334.	0.6	26
3	A Raman Study of the Sulfated Cement Hydrates: Ettringite and Monosulfoaluminate. <i>Journal of Advanced Concrete Technology</i> , 2007, 5, 299-312.	0.8	87
4	Structural Features of C ₂ S ^H (l) and Its Carbonation in Air? A Raman Spectroscopic Study. Part II: Carbonated Phases. <i>Journal of the American Ceramic Society</i> , 2007, 90, 908-917.	1.9	240
5	The use of Raman spectroscopy as a versatile characterization tool for calcium sulphoaluminate cements: a compositional and hydration study. <i>Journal of Materials Science</i> , 2007, 42, 8426-8432.	1.7	38
6	In situ Raman study of mineral phases formed as by-products in a rotary kiln for clinker production. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 806-812.	1.2	15
7	On the symmetry of Ba ₃ Al ₂ O ₆ - X-ray diffraction and Raman spectroscopy studies. <i>Solid State Sciences</i> , 2009, 11, 77-84.	1.5	24
8	Ageing of calcium silicate cements for endodontic use in simulated body fluids: a micro-Raman study. <i>Journal of Raman Spectroscopy</i> , 2009, 40, 1858-1866.	1.2	53
9	Use of micro-Raman spectroscopy to study reaction kinetics in blended white cement pastes containing metakaolin. <i>Journal of Raman Spectroscopy</i> , 2009, 40, 2063-2068.	1.2	39
10	Vibrational study on the bioactivity of Portland cement-based materials for endodontic use. <i>Journal of Molecular Structure</i> , 2009, 924-926, 548-554.	1.8	42
11	Shedding light into adhesive optimization of material interfaces by plasma treatment. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 265-272.	1.1	1
12	Kinetics of apatite formation on a calcium-silicate cement for root-end filling during ageing in physiological-like phosphate solutions. <i>Clinical Oral Investigations</i> , 2010, 14, 659-668.	1.4	91
13	Microstructural development of early age hydration shells around cement grains. <i>Cement and Concrete Research</i> , 2010, 40, 4-13.	4.6	155
14	Alcalis incorporados ao aluminato tricálcico: efeitos na hidratação. <i>Ambiente Construído</i> , 2010, 10, 177-189.	0.2	4
15	Hydration reactions of the C3A-CaSO ₄ .2H ₂ O system (1 : 1 mole ratio) at 30 and 50°C. Part I - effect of calcium lignosulfonate. <i>Advances in Cement Research</i> , 2010, 22, 123-126.	0.7	2
16	Characterisation of cement hydrate phases by TEM, NMR and Raman spectroscopy. <i>Advances in Cement Research</i> , 2010, 22, 233-248.	0.7	141
17	Current themes in cement research. <i>Advances in Applied Ceramics</i> , 2010, 109, 253-259.	0.6	10
18	Influence of some heavy metal nitrates on the hydration of C ₃ A. <i>Advances in Cement Research</i> , 2011, 23, 215-220.	0.7	3

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19	Effect of tricalcium aluminate on the properties of tricalcium silicate-tricalcium aluminate mixtures: setting time, mechanical strength and biocompatibility. <i>International Endodontic Journal</i> , 2011, 44, 41-50.	2.3	37
20	Three-dimensional printing of flash-setting calcium aluminate cement. <i>Journal of Materials Science</i> , 2011, 46, 2947-2954.	1.7	51
21	Vibrational investigation of calcium-silicate cements for endodontics in simulated body fluids. <i>Journal of Molecular Structure</i> , 2011, 993, 367-375.	1.8	34
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23	A new approach in quantitative in-situ XRD of cement pastes: Correlation of heat flow curves with early hydration reactions. <i>Cement and Concrete Research</i> , 2011, 41, 123-128.	4.6	256
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27	Properties of synthetic monosulfate as a novel material for arsenic removal. <i>Journal of Hazardous Materials</i> , 2012, 227-228, 402-409.	6.5	16
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31	A Raman spectroscopic study of the evolution of sulfates and hydroxides in cement-fly ash pastes. <i>Cement and Concrete Research</i> , 2013, 53, 91-103.	4.6	48
32	Effect of Nano Silica on Setting Time and Physical Properties of Mineral Trioxide Aggregate. <i>Journal of Endodontics</i> , 2013, 39, 1448-1451.	1.4	43
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34	Post mortem study of refractory lining used in FCC units. <i>Engineering Failure Analysis</i> , 2013, 34, 290-299.	1.8	5
35	Hydration of calcium aluminates and calcium sulfoaluminate studied by Raman spectroscopy. <i>Cement and Concrete Research</i> , 2013, 47, 43-50.	4.6	120
36	Cementos Biomédicos de Fosfato Tricálcico Reforzados con Silicatos y Aluminatos de Calcio-Preparación, Caracterización y Estudios de biodegradación. <i>IFMBE Proceedings</i> , 2013, , 100-103.	0.2	1

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38	The effect of prehydration on the engineering properties of CEM I Portland cement. Advances in Cement Research, 2013, 25, 12-20.	0.7	26
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45	What do different tests tell about the mechanical and biological properties of bioceramic materials?. Endodontic Topics, 2015, 32, 47-85.	0.5	19
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47	β -Tricalcium phosphate cements modified with β -dicalcium silicate and tricalcium aluminate: Physicochemical characterization, <i>in vitro</i> bioactivity and cytotoxicity. , 2015, 103, 72-83.		22
48	Varying fly ash and slag contents in Portland limestone cement mortars exposed to external sulfates. Construction and Building Materials, 2015, 78, 333-341.	3.2	33
49	An experimental investigation of laser scabbling of concrete. Construction and Building Materials, 2015, 89, 76-89.	3.2	17
50	Synthesis and performance of itaconic acid/acrylamide/sodium styrene sulfonate as a self-adapting retarder for oil well cement. RSC Advances, 2015, 5, 55428-55437.	1.7	17
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52	A novel cementitious microfiltration membrane: mechanisms of pore formation and properties for water permeation. RSC Advances, 2015, 5, 99-108.	1.7	10
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57	In-situ reaction of the very early hydration of C3A-gypsum-sucrose system by Micro-Raman spectroscopy. <i>Cement and Concrete Composites</i> , 2016, 73, 251-256.	4.6	13
58	Impact of chemical variability of ground granulated blast-furnace slag on the phase formation in alkali-activated slag pastes. <i>Cement and Concrete Research</i> , 2016, 89, 310-319.	4.6	82
59	Evaluation of microstructural and microchemical aspects of high density concrete exposed to sustained elevated temperature. <i>Construction and Building Materials</i> , 2016, 126, 453-465.	3.2	17
60	Calcium aluminates in clinker remnants as marker phases for various types of 19th-century cement studied by Raman microspectroscopy. <i>European Journal of Mineralogy</i> , 2016, 28, 907-914.	0.4	12
61	Chemical mapping of cement pastes by using confocal Raman spectroscopy. <i>Frontiers of Structural and Civil Engineering</i> , 2016, 10, 168-173.	1.2	20
62	The influence of pH buffers on hydration of hydraulic phases in system CaO-Al ₂ O ₃ . <i>Journal of Thermal Analysis and Calorimetry</i> , 2016, 124, 629-638.	2.0	9
63	The effect of curing relative humidity on the microstructure of self-compacting concrete. <i>Construction and Building Materials</i> , 2016, 104, 154-159.	3.2	14
64	Calcium silicate-based cements and functional impacts of various constituents. <i>Dental Materials Journal</i> , 2017, 36, 8-18.	0.8	55
65	Novel approach to fabricate organo-LDH hybrid by the intercalation of sodium hexadecyl sulfate into tricalcium aluminate. <i>Applied Clay Science</i> , 2017, 140, 25-30.	2.6	29
66	In situ Raman studies on cement paste prepared with natural pozzolanic volcanic ash and Ordinary Portland Cement. <i>Construction and Building Materials</i> , 2017, 148, 444-454.	3.2	32
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68	Using ultrasonic wave reflection to monitor false set of cement paste. <i>Cement and Concrete Composites</i> , 2017, 84, 10-18.	4.6	13
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71	In situ chemical modification of Ca-Si-H induced by CO ₂ laser irradiation. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	0
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74	Synchrotron X-ray nanotomographic and spectromicroscopic study of the tricalcium aluminate hydration in the presence of gypsum. Cement and Concrete Research, 2018, 111, 130-137.	4.6	79
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84	Hydration model for the OPC-CNT mixture: Theory and experiment. Construction and Building Materials, 2020, 264, 120691.	3.2	11
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92	Catalytic ozonation with silicate-based microfiltration membrane for the removal of iopamidol in aqueous solution. <i>Separation and Purification Technology</i> , 2021, 257, 117873.	3.9	10
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94	The effect of a polycarboxylate ether on C3A / CaSO ₄ ·2H ₂ O passivation monitored by optical spectroscopy. <i>Construction and Building Materials</i> , 2021, 270, 121856.	3.2	2
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96	Influences of calcium sulfate bearing material and zinc oxide nanoparticle on hydration properties of white cement clinker. <i>Journal of Materials Research and Technology</i> , 2021, 11, 2003-2014.	2.6	2
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99	Correlated strength enhancement mechanisms in carbon nanotube based geopolymer and OPC binders. <i>Construction and Building Materials</i> , 2021, 305, 124748.	3.2	14
100	Hydration and microstructural characterization of early-age cement paste with ultrasonic wave velocity and electrical resistivity measurements. <i>Construction and Building Materials</i> , 2021, 303, 124508.	3.2	30
101	Enabling phase quantification of anhydrous cements via Raman imaging. <i>Cement and Concrete Research</i> , 2021, 150, 106592.	4.6	13
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106	Study on Synthesis of Tricalciumaluminate Clinker by Hydrate-burning Method. <i>Journal of the Korean Ceramic Society</i> , 2007, 44, 517-523.	1.1	2
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116	Characterization of Calcium Silicate Hydrate Gels with Different Calcium to Silica Ratios and Polymer Modifications. <i>Gels</i> , 2022, 8, 75.	2.1	15
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118	Degradation of iopamidol by silicate-based microfiltration membrane activated peroxymonosulfate in aqueous solution: Efficiency, mechanism and degradation pathway. <i>Journal of Cleaner Production</i> , 2022, 338, 130562.	4.6	2
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128	Tracing the Status of Silica Fume in Cementitious Materials Subjected to Deterioration Mechanisms with Raman Microscope. <i>Materials</i> , 2022, 15, 5195.	1.3	1

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