FrÃ©dÃ©ric Angeli

List of Publications by Year
in descending order

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Version: 2024-02-01

46 papers	2,716 citations	159585 30 h-index	223800 46 g-index
46 all docs	46 docs citations	46 times ranked	1657 citing authors

#	Article	IF	Citations
1	Influence of temperature and relative humidity on vapor hydration of an AVM nuclear waste glass. Journal of Nuclear Materials, 2021, 543, 152571.	2.7	8
2	Short communication on the Influence of the temperature between 30 and 70Â°C on the hydration of SON68 nuclear waste glass in a vapour phase. Journal of Nuclear Materials, 2021, 545, 152738.	2.7	6
3	Impact of magnesium on the structure of aluminoborosilicate glasses: A solidâ€state NMR and Raman spectroscopy study. Journal of the American Ceramic Society, 2021, 104, 4518-4536.	3.8	26
4	Aqueous alteration of silicate glass: state of knowledge and perspectives. Npj Materials Degradation, 2021, 5, .	5.8	56
5	Insights into the mechanisms controlling the residual corrosion rate of borosilicate glasses. Npj Materials Degradation, 2020, 4, .	5.8	26
6	Can a simple topological-constraints-based model predict the initial dissolution rate of borosilicate and aluminosilicate glasses?. Npj Materials Degradation, 2020, 4, .	5.8	26
7	Influence of composition of nuclear waste glasses on vapor phase hydration. Journal of Nuclear Materials, 2019, 525, 53-71.	2.7	20
8	Zirconium local environment in simplified nuclear glasses altered in basic, neutral or acidic conditions: Evidence of a double-layered gel. Journal of Non-Crystalline Solids, 2019, 503-504, 268-278.	3.1	11
9	Effect of thermally induced structural disorder on the chemical durability of International Simple Glass. Npj Materials Degradation, 2018, 2, .	5.8	37
10	Influence of zeolite precipitation on borosilicate glass alteration under hyperalkaline conditions. Journal of Nuclear Materials, 2017, 491, 67-82.	2.7	20
11	Glassâ€“water interaction: Effect of high-valence cations on glass structure and chemical durability. Geochimica Et Cosmochimica Acta, 2016, 181, 54-71.	3.9	36
12	Structure and Chemical Durability of Lead Crystal Glass. Environmental Science & Technology, 2016, 50, 11549-11558.	10.0	24
13	Rare-earth silicate crystallization in borosilicate glasses: Effect on structural and chemical durability properties. Journal of Non-Crystalline Solids, 2016, 438, 37-48.	3.1	32
14	Key Phenomena Governing HLW Glass Behavior in the French Deep Geological Disposal. Materials Research Society Symposia Proceedings, 2015, 1744, 127-138.	0.1	1
15	Calcium environment in silicate and aluminosilicate glasses probed by 43Ca MQMAS NMR experiments and MD-GIPAW calculations. Solid State Nuclear Magnetic Resonance, 2015, 68-69, 31-36.	2.3	37
16	Phase separation and crystallization effects on the structure and durability of molybdenum borosilicate glass. Journal of Non-Crystalline Solids, 2015, 427, 120-133.	3.1	47
17	Origin and consequences of silicate glass passivation by surface layers. Nature Communications, 2015, 6, 6360.	12.8	219
18	Chemical and mineralogical modifications of simplified radioactive waste calcine during heat treatment. Journal of Nuclear Materials, 2014, 448, 8-19.	2.7	8

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19	Investigation of local environment around rare earths (La and Eu) by fluorescence line narrowing during borosilicate glass alteration. Journal of Luminescence, 2014, 145, 213-218.	3.1	11
20	Probing silicon and aluminium chemical environments in silicate and aluminosilicate glasses by solid state NMR spectroscopy and accurate first-principles calculations. Geochimica Et Cosmochimica Acta, 2014, 125, 170-185.	3.9	72
21	Antagonist effects of calcium on borosilicate glass alteration. Journal of Nuclear Materials, 2013, 441, 402-410.	2.7	67
22	Influence of lanthanum on borosilicate glass structure: A multinuclear MAS and MQMAS NMR investigation. Journal of Non-Crystalline Solids, 2013, 376, 189-198.	3.1	57
23	An enhanced resolution of the structural environment of zirconium in borosilicate glasses. Journal of Non-Crystalline Solids, 2013, 381, 40-47.	3.1	31
24	Chemical Durability of Lanthanumâ€Enriched Borosilicate Glass. International Journal of Applied Glass Science, 2013, 4, 383-394.	2.0	23
25	Effect of composition on the short-term and long-term dissolution rates of ten borosilicate glasses of increasing complexity from 3 to 30 oxides. Journal of Non-Crystalline Solids, 2012, 358, 2559-2570.	3.1	174
26	Effect of temperature and thermal history on borosilicate glass structure. Physical Review B, 2012, 85, .	3.2	117
27	Why Do Certain Glasses with a High Dissolution Rate Undergo a Low Degree of Corrosion?. Journal of Physical Chemistry C, 2011, 115, 5846-5855.	3.1	79
28	Insight into sodium silicate glass structural organization by multinuclear NMR combined with first-principles calculations. Geochimica Et Cosmochimica Acta, 2011, 75, 2453-2469.	3.9	120
29	Modification of Molybdenum Structural Environment in Borosilicate Glasses with Increasing Content of Boron and Calcium Oxide by <scp><scp>⁹⁵Mo</scp> MAS NMR</scp>. Journal of the American Ceramic Society, 2011, 94, 4274-4282.	3.8	45
30	Contribution of first-principles calculations to multinuclear NMR analysis of borosilicate glasses. Magnetic Resonance in Chemistry, 2010, 48, S159-S170.	1.9	49
31	Boron Speciation in Sodaâ€Lime Borosilicate Glasses Containing Zirconium. Journal of the American Ceramic Society, 2010, 93, 2693-2704.	3.8	111
32	First investigations of the influence of IVB elements (Ti, Zr, and Hf) on the chemical durability of soda-lime borosilicate glasses. Journal of Non-Crystalline Solids, 2010, 356, 2315-2322.	3.1	46
33	Structural identification of a trioctahedral smectite formed by the aqueous alteration of a nuclear glass. Applied Clay Science, 2010, 49, 135-141.	5.2	29
34	Chemical durability of hollandite ceramic for conditioning cesium. Journal of Nuclear Materials, 2008, 380, 59-69.	2.7	37
35	Insight into silicate-glass corrosion mechanisms. Nature Materials, 2008, 7, 978-983.	27.5	402
36	Aqueous alteration of five-oxide silicate glasses: Experimental approach and Monte Carlo modeling. Journal of Non-Crystalline Solids, 2008, 354, 155-161.	3.1	48

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37	Influence of zirconium on the structure of pristine and leached soda-lime borosilicate glasses: Towards a quantitative approach by 17O MQMAS NMR. Journal of Non-Crystalline Solids, 2008, 354, 3713-3722.	3.1	66
38	Investigation of gel porosity clogging during glass leaching. Journal of Non-Crystalline Solids, 2008, 354, 4952-4958.	3.1	75
39	Contribution of 43Ca MAS NMR for probing the structural configuration of calcium in glass. Chemical Physics Letters, 2007, 440, 324-328.	2.6	86
40	Influence of glass composition and alteration solution on leached silicate glass structure: A solid-state NMR investigation. Geochimica Et Cosmochimica Acta, 2006, 70, 2577-2590.	3.9	85
41	Experimental Study and Monte Carlo Modeling of Calcium Borosilicate Glasses Leaching. Materials Research Society Symposia Proceedings, 2006, 985, 1.	0.1	2
42	17O 3Q-MAS NMR characterization of a sodium aluminoborosilicate glass and its alteration gel. Chemical Physics Letters, 2001, 341, 23-28.	2.6	52
43	Investigation of Alâ€“Oâ€“Si bond angle in glass by 3Q-MAS NMR and molecular dynamics. Chemical Physics Letters, 2000, 320, 681-687.	2.6	48
44	Influence of glass chemical composition on the Naâ€“O bond distance: a 23Na 3Q-MAS NMR and molecular dynamics study. Journal of Non-Crystalline Solids, 2000, 276, 132-144.	3.1	91
45	Structural Characterization of Glass from the Inversion of 23Na and 27Al 3Q-MAS NMR Spectra. Journal of Physical Chemistry B, 1999, 103, 10356-10364.	2.6	51
46	Comparative Structural Study and Dissolution of Simplified Glasses: A Radioactive Waste Glass (R7T7) and a Basaltic Glass. Materials Research Society Symposia Proceedings, 1997, 506, 71.	0.1	2