Pierre Frugier

List of Publications by Year
in descending order

29 papers	1,449 citations	331670 21 h-index	526287 27 g-index
29 all docs	29 docs citations	29 times ranked	745 citing authors

#	Article	IF	Citations
1	Origin and consequences of silicate glass passivation by surface layers. Nature Communications, 2015, 6, 6360.	12.8	219
2	Resumption of nuclear glass alteration: State of the art. Journal of Nuclear Materials, 2014, 448, 348-363.	2.7	124
3	The effect of composition on the leaching of three nuclear waste glasses: R7T7, AVM and VRZ. Journal of Nuclear Materials, 2005, 346, 194-207.	2.7	106
4	Structure of International Simple Glass and properties of passivating layer formed in circumneutral pH conditions. Npj Materials Degradation, 2018, 2, .	5.8	91
5	Morphological evolution of alteration layers formed during nuclear glass alteration: new evidence of a gel as a diffusive barrier. Journal of Nuclear Materials, 2004, 326, 9-18.	2.7	84
6	New Insight into the Residual Rate of Borosilicate Glasses: Effect of <scp>S</scp>/<scp>V</scp> and Glass Composition. International Journal of Applied Glass Science, 2013, 4, 371-382.	2.0	76
7	Long-term modeling of alteration-transport coupling: Application to a fractured Roman glass. Geochimica Et Cosmochimica Acta, 2010, 74, 2291-2315.	3.9	69
8	Glass dissolution rate measurement and calculation revisited. Journal of Nuclear Materials, 2016, 476, 140-154.	2.7	69
9	Protective properties and dissolution ability of the gel formed during nuclear glass alteration. Journal of Nuclear Materials, 2005, 342, 26-34.	2.7	65
10	Theoretical consideration on the application of the Aagaardâ€"Helgeson rate law to the dissolution of silicate minerals and glasses. Chemical Geology, 2008, 255, 14-24.	3.3	58
11	Vapor hydration of SON68 glass from 90Â°C to 200Â°C: A kinetic study and corrosion products investigation. Journal of Non-Crystalline Solids, 2012, 358, 2894-2905.	3.1	57
12	Composition effects on synthetic glass alteration mechanisms: Part 1. Experiments. Chemical Geology, 2010, 279, 106-119.	3.3	54
13	Contribution of zeolite-seeded experiments to the understanding of resumption of glass alteration. Npj Materials Degradation, 2017, 1, .	5.8	47
14	Resumption of Alteration at High Temperature and pH: Rates Measurements and Comparison with Initial Rates. , 2014, 7, 202-208.		34
15	Modeling Interfacial Glassâ€Water Reactions: Recent Advances and Current Limitations. International Journal of Applied Glass Science, 2014, 5, 421-435.	2.0	34
16	Dolomite effect on borosilicate glass alteration. Applied Geochemistry, 2013, 33, 237-251.	3.0	32
17	HLW glass dissolution in the presence of magnesium carbonate: Diffusion cell experiment and coupled modeling of diffusion and geochemical interactions. Journal of Nuclear Materials, 2013, 443, 507-521.	2.7	29
18	Compositional Effects on the Long-Term Durability of Nuclear Waste Glasses: A Statistical Approach. Materials Research Society Symposia Proceedings, 2004, 824, 240.	0.1	27

#	Article	IF	Citations
19	Chemical durability of peraluminous glasses for nuclear waste conditioning. Npj Materials Degradation, 2018, 2, .	5.8	25
20	Effect of Zeolite Formation on Borosilicate Glass Dissolution Kinetics. Procedia Earth and Planetary Science, 2013, 7, 264-267.	0.6	23
21	Modeling glass corrosion with GRAAL. Npj Materials Degradation, 2018, 2, .	5.8	23
22	X-ray reflectometry characterization of SON 68 glass alteration films. Journal of Non-Crystalline Solids, 2003, 325, 113-123.	3.1	22
23	RTM for Waste Repositories. Reviews in Mineralogy and Geochemistry, 2019, 85, 419-457.	4.8	21
24	SON68 Glass Alteration Enhanced by Magnetite. Procedia Earth and Planetary Science, 2013, 7, 300-303.	0.6	16
25	Mineralogy and thermodynamic properties of magnesium phyllosilicates formed during the alteration of a simplified nuclear glass. Journal of Nuclear Materials, 2016, 475, 255-265.	2.7	16
26	Application of GRAAL model to the resumption of International Simple Glass alteration. Npj Materials Degradation, 2018, 2, .	5.8	13
27	Modeling Resumption of Glass Alteration Due to Zeolites Precipitation. Procedia Earth and Planetary Science, 2017, 17, 340-343.	0.6	10
28	Mechanisms involved in the increase of borosilicate glass alteration by interaction with the Callovian-Oxfordian clayey fraction. Applied Geochemistry, 2018, 98, 206-220.	3.0	5
29	14. RTM for Waste Repositories. , 2019, , 419-458.		0