Stphane Gin

List of Publications by Citations

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172 papers	6,392 citations	47 h-index	73 g-index
184 ext. papers	7,229 ext. citations	5.2 avg, IF	6.04 L-index

#	Paper	IF	Citations
172	Insight into silicate-glass corrosion mechanisms. *Nature Materials*, **2008**, 7, 978-83	27	333
171	An international initiative on long-term behavior of high-level nuclear waste glass. *Materials Today*, **2013**, 16, 243-248	21.8	315
170	SON68 nuclear glass dissolution kinetics: Current state of knowledge and basis of the new GRAAL model. *Journal of Nuclear Materials*, **2008**, 380, 8-21	3.3	273
169	Origin and consequences of silicate glass passivation by surface layers. *Nature Communications*, **2015**, 6, 6360	17.4	175
168	Current Understanding and Remaining Challenges in Modeling Long-Term Degradation of Borosilicate Nuclear Waste Glasses. *International Journal of Applied Glass Science*, **2013**, 4, 283-294	1.8	165
167	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	3.9	149
166	The fate of silicon during glass corrosion under alkaline conditions: A mechanistic and kinetic study with the International Simple Glass. *Geochimica Et Cosmochimica Acta*, **2015**, 151, 68-85	5.5	136
165	Nuclear Glass Durability: New Insight into Alteration Layer Properties. *Journal of Physical Chemistry C*, **2011**, 115, 18696-18706	3.8	105
164	Resumption of nuclear glass alteration: State of the art. *Journal of Nuclear Materials*, **2014**, 448, 348-363	3.3	104
163	Alteration kinetics of a simplified nuclear glass in an aqueous medium: effects of solution chemistry and of protective gel properties on diminishing the alteration rate. *Journal of Nuclear Materials*, **2000**, 280, 216-229	3.3	103
162	Role of neoformed phases on the mechanisms controlling the resumption of SON68 glass alteration in alkaline media. *Journal of Nuclear Materials*, **2004**, 324, 152-164	3.3	101
161	The effect of composition on the leaching of three nuclear waste glasses: R7T7, AVM and VRZ. *Journal of Nuclear Materials*, **2005**, 346, 194-207	3.3	99
160	Present understanding of R7T7 glass alteration kinetics and their impact on long-term behavior modeling. *Journal of Nuclear Materials*, **2001**, 298, 27-36	3.3	98
159	A comparative review of the aqueous corrosion of glasses, crystalline ceramics, and metals. *Npj Materials Degradation*, **2018**, 2,	5.7	96
158	Contribution of atom-probe tomography to a better understanding of glass alteration mechanisms: Application to a nuclear glass specimen altered 25years in a granitic environment. *Chemical Geology* , **2013**, 349-350, 99-109	4.2	93
157	SON 68 nuclear glass alteration kinetics between pH 7 and pH 11.5. *Journal of Nuclear Materials*, **2001**, 295, 83-96	3.3	93
156	Long-term Behavior Science: The cornerstone approach for reliably assessing the long-term performance of nuclear waste. *Journal of Nuclear Materials*, **2012**, 420, 182-192	3.3	88

155	Glass□water interphase reactivity with calcium rich solutions. *Geochimica Et Cosmochimica Acta*, **2011**, 75, 4125-4139	5.5	85
154	Role and properties of the gel formed during nuclear glass alteration: importance of gel formation conditions. *Journal of Nuclear Materials*, **2001**, 298, 1-10	3.3	85
153	Atom-Probe Tomography, TEM and ToF-SIMS study of borosilicate glass alteration rim: A multiscale approach to investigating rate-limiting mechanisms. *Geochimica Et Cosmochimica Acta*, **2017**, 202, 57-76	5.5	77
152	Application of the GRAAL model to leaching experiments with SON68 nuclear glass in initially pure water. *Journal of Nuclear Materials*, **2009**, 392, 552-567	3.3	76
151	Radionuclides containment in nuclear glasses: an overview. *Radiochimica Acta*, **2017**, 105, 927-959	1.9	75
150	Why Do Certain Glasses with a High Dissolution Rate Undergo a Low Degree of Corrosion?. *Journal of Physical Chemistry C*, **2011**, 115, 5846-5855	3.8	75
149	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	3.3	75
148	Solid state diffusion during nuclear glass residual alteration in solution. *Journal of Nuclear Materials* , **2007**, 362, 466-473	3.3	74
147	Hydrogen□odium interdiffusion in borosilicate glasses investigated from first principles. *Journal of Non-Crystalline Solids*, **2006**, 352, 3147-3152	3.9	74
146	Dynamics of self-reorganization explains passivation of silicate glasses. *Nature Communications*, **2018**, 9, 2169	17.4	74
145	Structure of International Simple Glass and properties of passivating layer formed in circumneutral pH conditions. *Npj Materials Degradation*, **2018**, 2,	5.7	73
144	Investigation of gel porosity clogging during glass leaching. *Journal of Non-Crystalline Solids*, **2008**, 354, 4952-4958	3.9	65
143	Open Scientific Questions about Nuclear Glass Corrosion **2014**, 7, 163-171		64
142	Effect of clayey groundwater on the dissolution rate of the simulated nuclear waste glass SON68. *Journal of Nuclear Materials*, **2012**, 420, 508-518	3.3	63
141	New Insight into the Residual Rate of Borosilicate Glasses: Effect of S/V and Glass Composition. *International Journal of Applied Glass Science*, **2013**, 4, 371-382	1.8	62
140	The controversial role of inter-diffusion in glass alteration. *Chemical Geology*, **2016**, 440, 115-123	4.2	61
139	Forward dissolution rate of silicate glasses of nuclear interest in clay-equilibrated groundwater. *Chemical Geology*, **2012**, 330-331, 207-217	4.2	60
138	Long-term modeling of alteration-transport coupling: Application to a fractured Roman glass. *Geochimica Et Cosmochimica Acta*, **2010**, 74, 2291-2315	5.5	59

137	Antagonist effects of calcium on borosilicate glass alteration. *Journal of Nuclear Materials*, **2013**, 441, 402-410		3.3	58
136	Glass–iron–clay interactions in a radioactive waste geological disposal: An integrated laboratory-scale experiment. *Applied Geochemistry*, **2011**, 26, 65-79		3.5	58
135	A fractured roman glass block altered for 1800 years in seawater: Analogy with nuclear waste glass in a deep geological repository. *Geochimica Et Cosmochimica Acta*, **2008**, 72, 5372-5385		5.5	58
134	Long-term alteration of basaltic glass: Mechanisms and rates. *Geochimica Et Cosmochimica Acta*, **2015**, 154, 28-48		5.5	56
133	Theoretical consideration on the application of the Aagaard–Helgeson rate law to the dissolution of silicate minerals and glasses. *Chemical Geology*, **2008**, 255, 14-24		4.2	55
132	Protective properties and dissolution ability of the gel formed during nuclear glass alteration. *Journal of Nuclear Materials*, **2005**, 342, 26-34		3.3	54
131	Impact of Pore Size and Pore Surface Composition on the Dynamics of Confined Water in Highly Ordered Porous Silica. *Journal of Physical Chemistry C*, **2012**, 116, 7021-7028		3.8	53
130	Glass dissolution rate measurement and calculation revisited. *Journal of Nuclear Materials*, **2016**, 476, 140-154		3.3	53
129	Water penetration mechanisms in nuclear glasses by X-ray and neutron reflectometry. *Journal of Non-Crystalline Solids*, **2007**, 353, 2221-2230		3.9	52
128	French SON 68 nuclear glass alteration mechanisms on contact with clay media. *Applied Geochemistry*, **2001**, 16, 861-881		3.5	50
127	Composition effects on synthetic glass alteration mechanisms: Part 1. Experiments. *Chemical Geology*, **2010**, 279, 106-119		4.2	49
126	17O 3Q-MAS NMR characterization of a sodium aluminoborosilicate glass and its alteration gel. *Chemical Physics Letters*, **2001**, 341, 23-28		2.5	49
125	Vapor hydration of SON68 glass from 90 °C to 200 °C: A kinetic study and corrosion products investigation. *Journal of Non-Crystalline Solids*, **2012**, 358, 2894-2905		3.9	47
124	The use of natural and archeological analogues for understanding the long-term behavior of nuclear glasses. *Comptes Rendus - Geoscience*, **2011**, 343, 237-245		1.4	47
123	The dual effect of Mg on the long-term alteration rate of AVM nuclear waste glasses. *Journal of Nuclear Materials*, **2012**, 427, 297-310		3.3	46
122	Influence of lanthanum on borosilicate glass structure: A multinuclear MAS and MQMAS NMR investigation. *Journal of Non-Crystalline Solids*, **2013**, 376, 189-198		3.9	46
121	Silicate glass alteration enhanced by iron: origin and long-term implications. *Environmental Science & Technology*, **2013**, 47, 750-6		10.3	44
120	Various effects of magnetite on international simple glass (ISG) dissolution: implications for the long-term durability of nuclear glasses. *Npj Materials Degradation*, **2017**, 1,		5.7	43

119	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	3.9	42
118	Impact of iron on nuclear glass alteration in geological repository conditions: A multiscale approach. *Applied Geochemistry*, **2013**, 31, 159-170	3.5	40
117	A 25-year laboratory experiment on French SON68 nuclear glass leached in a granitic environment □ First investigations. *Journal of Nuclear Materials*, **2011**, 408, 73-89	3.3	37
116	Contribution of zeolite-seeded experiments to the understanding of resumption of glass alteration. *Npj Materials Degradation*, **2017**, 1,	5.7	36
115	Molecular Dynamics Simulations of Water Structure and Diffusion in a 1 nm Diameter Silica Nanopore as a Function of Surface Charge and Alkali Metal Counterion Identity. *Journal of Physical Chemistry C*, **2018**, 122, 17764-17776	3.8	35
114	Spectroscopic ellipsometry study of thickness and porosity of the alteration layer formed on international simple glass surface in aqueous corrosion conditions. *Npj Materials Degradation*, **2018**, 2,	5.7	35
113	Borosilicate glass alteration driven by magnesium carbonates. *Journal of Nuclear Materials*, **2012**, 420, 347-361	3.3	35
112	Impact of alkali on the passivation of silicate glass. *Npj Materials Degradation*, **2018**, 2,	5.7	33
111	Predicting the dissolution kinetics of silicate glasses by topology-informed machine learning. *Npj Materials Degradation*, **2019**, 3,	5.7	32
110	Self-accelerated corrosion of nuclear waste forms at material interfaces. *Nature Materials*, **2020**, 19, 310-316	27	32
109	Effect of iron metal and siderite on the durability of simulated archeological glassy material. *Corrosion Science*, **2013**, 76, 403-414	6.8	31
108	Dolomite effect on borosilicate glass alteration. *Applied Geochemistry*, **2013**, 33, 237-251	3.5	31
107	Archaeological analogs and the future of nuclear waste glass. *Journal of Nuclear Materials*, **2010**, 406, 365-370	3.3	31
106	Effect of natural and synthetic iron corrosion products on silicate glass alteration processes. *Geochimica Et Cosmochimica Acta*, **2016**, 172, 287-305	5.5	31
105	SON68 glass dissolution driven by magnesium silicate precipitation. *Journal of Nuclear Materials*, **2013**, 442, 17-28	3.3	30
104	Protective Effect of the Alteration Gel: A Key Mechanism in the Long-Term Behavior of Nuclear Waste Glass. *Materials Research Society Symposia Proceedings*, **2000**, 663, 1		30
103	Experimental investigation of aqueous corrosion of R7T7 nuclear glass at 90□C in the presence of organic species. *Applied Geochemistry*, **1994**, 9, 255-269	3.5	30
102	Hydrogen bonding interactions of H2O and SiOH on a boroaluminosilicate glass corroded in aqueous solution. *Npj Materials Degradation*, **2020**, 4,	5.7	29

101	Resumption of Alteration at High Temperature and pH: Rates Measurements and Comparison with Initial Rates **2014**, 7, 202-208		29
100	Borosilicate Nuclear Waste Glass Alteration Kinetics: Chemical Inhibition and Affinity Control. *Materials Research Society Symposia Proceedings*, **1997**, 506, 63		27
99	Study of gel development during SON68 glass alteration using atomic force microscopy. Comparison with two simplified glasses. *Journal of Nuclear Materials*, **2003**, 317, 83-92	3.3	27
98	Quantitative Structure-Property Relationship (QSPR) Analysis of ZrO-Containing Soda-Lime Borosilicate Glasses. *Journal of Physical Chemistry B*, **2019**, 123, 1412-1422	3.4	27
97	Structural identification of a trioctahedral smectite formed by the aqueous alteration of a nuclear glass. *Applied Clay Science*, **2010**, 49, 135-141	5.2	26
96	Impact of soda-lime borosilicate glass composition on water penetration and water structure at the first time of alteration. *Journal of Non-Crystalline Solids*, **2012**, 358, 2951-2960	3.9	25
95	Analytic implementation of the GRAAL model: Application to a R7T7-type glass package in a geological disposal environment. *Journal of Nuclear Materials*, **2010**, 404, 178-202	3.3	25
94	An enhanced resolution of the structural environment of zirconium in borosilicate glasses. *Journal of Non-Crystalline Solids*, **2013**, 381, 40-47	3.9	24
93	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	3.3	24
92	Alteration kinetics of the glass-ceramic zirconolite and role of the alteration film �Comparison with the SON68 glass. *Journal of Nuclear Materials*, **2007**, 366, 277-287	3.3	24
91	GLAMOR �Or How We Achieved a Common Understanding on the Decrease of Glass Dissolution Kinetics. *Ceramic Transactions*,115-126	0.1	23
90	Compositional Effects on the Long-Term Durability of Nuclear Waste Glasses: A Statistical Approach. *Materials Research Society Symposia Proceedings*, **2004**, 824, 240		22
89	Effect of Zeolite Formation on Borosilicate Glass Dissolution Kinetics. *Procedia Earth and Planetary Science*, **2013**, 7, 264-267		21
88	Use of orthophosphate complexing agents to investigate mechanisms limiting the alteration kinetics of French SON 68 nuclear glass. *Applied Geochemistry*, **2000**, 15, 1505-1525	3.5	21
87	Reactive transport processes occurring during nuclear glass alteration in presence of magnetite. *Applied Geochemistry*, **2015**, 58, 26-37	3.5	20
86	Son68 Glass Dissolution Kinetics at High Reaction Progress: Mechanisms Accounting for The Residual Alteration Rate. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		20
85	Long-term behavior of R7T7-type nuclear glass: Current state of knowledge and outlook. *Materials Research Society Symposia Proceedings*, **2004**, 824, 258		20
84	X-ray reflectometry characterization of SON 68 glass alteration films. *Journal of Non-Crystalline Solids*, **2003**, 325, 113-123	3.9	20

83	Structure and Chemical Durability of Lead Crystal Glass. *Environmental Science & Technology*, **2016**, 50, 11549-11558	10.3	19
82	Chemical Durability of Lanthanum-Enriched Borosilicate Glass. *International Journal of Applied Glass Science*, **2013**, 4, 383-394	1.8	19
81	Comparing the reactivity of glasses with their crystalline equivalents: The case study of plagioclase feldspar. *Geochimica Et Cosmochimica Acta*, **2019**, 254, 122-141	5.5	18
80	A General Mechanism for Gel Layer Formation on Borosilicate Glass under Aqueous Corrosion. *Journal of Physical Chemistry C*, **2020**, 124, 5132-5144	3.8	18
79	Chemical durability of peraluminous glasses for nuclear waste conditioning. *Npj Materials Degradation*, **2018**, 2,	5.7	18
78	Control of R7T7 Nuclear Glass Alteration Kinetics Under Saturation Conditions. *Materials Research Society Symposia Proceedings*, **1995**, 412, 189		18
77	Effect of thermally induced structural disorder on the chemical durability of International Simple Glass. *Npj Materials Degradation*, **2018**, 2,	5.7	18
76	Modeling glass corrosion with GRAAL. *Npj Materials Degradation*, **2018**, 2,	5.7	18
75	Influence of zeolite precipitation on borosilicate glass alteration under hyperalkaline conditions. *Journal of Nuclear Materials*, **2017**, 491, 67-82	3.3	16
74	Effect of pH on the stability of passivating gel layers formed on International Simple Glass. *Journal of Nuclear Materials*, **2019**, 524, 21-38	3.3	16
73	Archeological slag from Glinet: An example of silicate glass altered in an anoxic iron-rich environment. *Chemical Geology*, **2015**, 413, 28-43	4.2	16
72	Waste Glass **2012**, 451-483		16
71	Can a simple topological-constraints-based model predict the initial dissolution rate of borosilicate and aluminosilicate glasses?. *Npj Materials Degradation*, **2020**, 4,	5.7	15
70	Low-temperature lithium diffusion in simulated high-level boroaluminosilicate nuclear waste glasses. *Journal of Non-Crystalline Solids*, **2014**, 405, 83-90	3.9	15
69	SON68 Glass Alteration Enhanced by Magnetite. *Procedia Earth and Planetary Science*, **2013**, 7, 300-303		15
68	The effect of magnesium on the local structure and initial dissolution rate of simplified UK Magnox waste glasses. *Journal of Non-Crystalline Solids*, **2018**, 497, 82-92	3.9	14
67	ToF-SIMS depth profiling of altered glass. *Npj Materials Degradation*, **2019**, 3,	5.7	13
66	Molecular Dynamics Simulation of Water Confinement in Disordered Aluminosilicate Subnanopores. *Scientific Reports*, **2018**, 8, 3761	4.9	13

65	Mineralogy and thermodynamic properties of magnesium phyllosilicates formed during the alteration of a simplified nuclear glass. *Journal of Nuclear Materials*, **2016**, 475, 255-265	3.3	13
64	Heavy ion radiation ageing impact on long-term glass alteration behavior. *Journal of Nuclear Materials*, **2018**, 510, 168-177	3.3	13
63	Alteration of synthetic basaltic glass in silica saturated conditions: Analogy with nuclear glass. *Applied Geochemistry*, **2018**, 97, 19-31	3.5	13
62	Silicon isotope ratio measurements by inductively coupled plasma tandem mass spectrometry for alteration studies of nuclear waste glasses. *Analytica Chimica Acta*, **2017**, 954, 68-76	6.6	12
61	SON68 glass alteration under Si-rich solutions at low temperature (35?0 ?C): kinetics, secondary phases and isotopic exchange studies. *RSC Advances*, **2016**, 6, 72616-72633	3.7	12
60	Influence of composition of nuclear waste glasses on vapor phase hydration. *Journal of Nuclear Materials*, **2019**, 525, 53-71	3.3	12
59	Apparent Solubility Limit of Nuclear Glass. *Materials Research Society Symposia Proceedings*, **2000**, 663, 1		12
58	Spectral changes in Si?O?Si stretching band of porous glass network upon ingress of water. *Journal of Non-Crystalline Solids*, **2020**, 527, 119722	3.9	12
57	Molecular dynamics simulation of ballistic effects in simplified nuclear waste glasses. *Journal of Non-Crystalline Solids*, **2019**, 505, 188-201	3.9	12
56	Application of GRAAL model to the resumption of International Simple Glass alteration. *Npj Materials Degradation*, **2018**, 2,	5.7	12
55	Effect of clayey groundwater on the dissolution rate of SON68 simulated nuclear waste glass at 70 ?C. *Journal of Nuclear Materials*, **2018**, 503, 279-289	3.3	10
54	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	3.8	10
53	Effect of leaching-driven flow on the alteration kinetics of an ideal crack in SON68 glass. *Journal of Nuclear Materials*, **2012**, 426, 160-172	3.3	10
52	Modeling Resumption of Glass Alteration Due to Zeolites Precipitation. *Procedia Earth and Planetary Science*, **2017**, 17, 340-343		9
51	Monte Carlo simulation of the corrosion of irradiated simplified nuclear waste glasses. *Journal of Non-Crystalline Solids*, **2019**, 519, 119449	3.9	9
50	Insights into the mechanisms controlling the residual corrosion rate of borosilicate glasses. *Npj Materials Degradation*, **2020**, 4,	5.7	9
49	Development of an Experimental Design to Investigate the Effects of R7T7 Glass Composition on the Residual Rate of Alteration **2014**, 7, 193-201		8
48	Semi-stochastic generator (FraGMA) of 2D fractured media by mechanistic analogy ?Application to reactive transport in a fractured package of vitrified nuclear waste. *Computational Materials Science* , **2011**, 50, 1387-1398	3.2	8

47	SON68 Glass Dissolution Kinetics at High Reaction Progress: Experimental Evidence of the Residual Rate. *Materials Research Society Symposia Proceedings*, **2002**, 757, II5.9.1		8
46	Effect of decades of corrosion on the microstructure of altered glasses and their radiation stability. *Npj Materials Degradation*, **2020**, 4,	5.7	7
45	Glass Corrosion in the Presence of Iron-Bearing Materials and Potential Corrosion Suppressors. *Materials Research Society Symposia Proceedings*, **2015**, 1744, 139-144		7
44	Glass-Iron-Clay interactions in a radioactive waste geological disposal: a multiscale approach. *Materials Research Society Symposia Proceedings*, **2013**, 1518, 185-190		7
43	Aqueous alteration of silicate glass: state of knowledge and perspectives. *Npj Materials Degradation*, **2021**, 5,	5.7	7
42	Review of corrosion interactions between different materials relevant to disposal of high-level nuclear waste. *Npj Materials Degradation*, **2020**, 4,	5.7	6
41	Near-field corrosion interactions between glass and corrosion resistant alloys. *Npj Materials Degradation*, **2020**, 4,	5.7	6
40	Atomic Insights into the Events Governing the Borosilicate Glass–Water Interface. *Journal of Physical Chemistry C*, **2021**, 125, 7919-7931	3.8	6
39	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	3.9	6
38	Recent Advances in Corrosion Science Applicable To Disposal of High-Level Nuclear Waste. *Chemical Reviews*, **2021**, 121, 12327-12383	68.1	6
37	Dynamics of Water Confined in Gel Formed During Glass Alteration at a Picosecond Scale. *Procedia Earth and Planetary Science*, **2013**, 7, 733-737		5
36	Chemical durability of high-level waste glass in repository environment: main conclusions and remaining uncertainties from the GLASTAB and GLAMOR projects. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		5
35	Nuclear Glass Alteration in Clay: Assessment of the Effect of Direct Contact between the Materials through Experimental and Modeling Approach. *Materials Research Society Symposia Proceedings*, **2003**, 807, 636		5
34	Network structure in alteration layer of boroaluminosilicate glass formed by aqueous corrosion. *Journal of Non-Crystalline Solids*, **2021**, 553, 120494	3.9	5
33	Mechanisms involved in the increase of borosilicate glass alteration by interaction with the Callovian-Oxfordian clayey fraction. *Applied Geochemistry*, **2018**, 98, 206-220	3.5	5
32	Reply to: How much does corrosion of nuclear waste matrices matter. *Nature Materials*, **2020**, 19, 962-963	27	4
31	Investigation on boron and iodine behavior during nuclear glass vapor hydration. *Npj Materials Degradation*, **2021**, 5,	5.7	4
30	Impact of magnesium on the structure of aluminoborosilicate glasses: A solid-state NMR and Raman spectroscopy study. *Journal of the American Ceramic Society*, **2021**, 104, 4518-4536	3.8	4

29	Influence of iron on the alteration of the SON68 nuclear glass in the Callovo-Oxfordian groundwater. *Applied Geochemistry*, **2019**, 100, 268-278	3.5	4
28	Reactive Surface of Glass Particles Under Aqueous Corrosion. *Procedia Earth and Planetary Science*, **2017**, 17, 257-260		3
27	Incipient formation of zircon and hafnon during glass alteration at 90°C. *Journal of the American Ceramic Society*, **2019**, 102, 3123-3128	3.8	3
26	Topography of borosilicate glass reacting interface under aqueous corrosion. *Chemical Physics Letters*, **2013**, 588, 180-183	2.5	3
25	Modelling The Alteration of Son-68 Glass with Nearfield Materials. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		3
24	Long-Term Behavior of Embiez Archaeological Glass: Results after 1800 Years of Alteration in a Marine Environment. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		3
23	Predicting the dissolution rate of borosilicate glasses using QSPR analysis based on molecular dynamics simulations. *Journal of the American Ceramic Society*, **2021**, 104, 4445-4458	3.8	3
22	Use of Archaeological Glass to Predict the Long-Term Behavior of HLW. *Materials Research Society Symposia Proceedings*, **2009**, 1193, 417		2
21	Deciphering the non-linear impact of Al on chemical durability of silicate glass. *Acta Materialia*, **2022**, 225, 117478	8.4	2
20	Mass Transfer Phenomena in Nuclear Waste Packages. *Advances in Transport Phenomena*, **2009**, 31-133		2
19	Effects of Al:Si and (Al+Na):Si ratios on the static corrosion of sodium-boroaluminosilicate glasses. *International Journal of Applied Glass Science*,	1.8	2
18	Leaching and Reactivity at the Sodium Aluminosilicate Glass–Water Interface: Insights from a ReaxFF Molecular Dynamics Study. *Journal of Physical Chemistry C*, **2021**, 125, 27170-27184	3.8	2
17	Nanoscale imaging of hydrogen and sodium in alteration layers of corroded glass using ToF-SIMS: Is an auxiliary sputtering ion beam necessary?. *Surface and Interface Analysis*, **2019**, 51, 219-225	1.5	1
16	Single Idealized Cracks: A Tool for Understanding Fractured Glass Block Leaching. *Materials Research Society Symposia Proceedings*, **2008**, 1107, 1		1
15	Affinity Rate Law Failure to Describe Sodium Borosilicate Glass Alteration Kinetics. *Materials Research Society Symposia Proceedings*, **2003**, 807, 19		1
14	Experimental alteration of R7T7 glass in salt brines at 90°C and 150°C. *Applied Clay Science*, **1992**, 7, 87-96	5.2	1
13	The fate of Si and Fe while nuclear glass alters with steel and clay. *Npj Materials Degradation*, **2021**, 5,	5.7	1
12	Waste Glasses **2016**, 414-444		1

List of Publications

11	Leaching of Nuclear Waste Glass in Cement Pore Water: Effect of Calcium in Solution **2013**, 161-168		1
10	Estimating Internal Stress of an Alteration Layer Formed on Corroded Boroaluminosilicate Glass through Spectroscopic Ellipsometry Analysis. *ACS Applied Materials & Interfaces*, **2021**, 13, 50470-50480	9.5	0
9	Influence of Magnesium on the Structure of Complex Multicomponent Silicates: Insights from Molecular Simulations and Neutron Scattering Experiments. *Journal of Physical Chemistry B*, **2021**, 125, 11761-11776	3.4	0
8	A classical molecular dynamics simulation method for the formation of dry gels from boro-aluminosilicate glass structures. *Journal of Non-Crystalline Solids*, **2021**, 553, 120513	3.9	0
7	AVM nuclear glass/steel/claystone system altered by Callovo-Oxfordian poral water with and without cement-bentonite grout at 70 °C. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2021**, 72, 474-482	1.6	0
6	Behaviors of sodium and calcium ions at the borosilicate glass-water interface: Gaining new insights through an ab initio molecular dynamics study.. *Journal of Chemical Physics*, **2022**, 156, 134501	3.9	0
5	Impact of initial states on the vapor hydration of iodine-bearing borosilicate glass. *Journal of Non-Crystalline Solids*, **2022**, 587, 121584	3.9	0
4	Leach Testing Applied to the Investigation of Long-Term Behavior of High-Level Waste Glass: French Experience. *Ceramic Transactions*,93-101	0.1	
3	Characterization of Alteration Phases on HLW Glasses After 15 Years of PCT Leaching. *Ceramic Transactions*,189-199	0.1	
2	HLW Conditioning and Long-Term Performance **2021**, 564-576		
1	Nuclear Waste Vitrification **2021**, 1205-1218		