Bernd Grambow

List of Publications by Citations

109 papers	3,045 citations	28 h-index	52 g-index
113 ext. papers	3,346 ext. citations	4.7 avg, IF	5.31 L-index

#	Paper	IF	Citations
109	Eu(III) sorption to TiO2 (anatase and rutile): batch, XPS, and EXAFS studies. *Environmental Science & Technology*, **2009**, 43, 3115-21	10.3	320
108	First-order dissolution rate law and the role of surface layers in glass performance assessment. *Journal of Nuclear Materials*, **2001**, 298, 112-124	3.3	198
107	A General Rate Equation for Nuclear Waste Glass Corrosion. *Materials Research Society Symposia Proceedings*, **1984**, 44, 15		167
106	Nuclear Waste Glasses - How Durable?. *Elements*, **2006**, 2, 357-364	3.8	129
105	Complexation studies of Eu(III) with alumina-bound polymaleic acid: effect of organic polymer loading and metal ion concentration. *Environmental Science & Technology*, **2002**, 36, 3303-9	10.3	96
104	Behaviour of spent HTR fuel elements in aquatic phases of repository host rock formations. *Nuclear Engineering and Design*, **2006**, 236, 543-554	1.8	86
103	Mobile fission and activation products in nuclear waste disposal. *Journal of Contaminant Hydrology*, **2008**, 102, 180-6	3.9	85
102	Water diffusion in the simulated French nuclear waste glass SON 68 contacting silica rich solutions: Experimental and modeling. *Journal of Nuclear Materials*, **2006**, 355, 54-67	3.3	83
101	Chemical corrosion of highly radioactive borosilicate nuclear waste glass under simulated repository conditions. *Journal of Materials Research*, **1990**, 5, 1130-1146	2.5	81
100	Study of the interaction between europium (III) and Bacillus subtilis: fixation sites, biosorption modeling and reversibility. *Journal of Colloid and Interface Science*, **2003**, 262, 351-61	9.3	68
99	Caesium-rich micro-particles: A window into the meltdown events at the Fukushima Daiichi Nuclear Power Plant. *Scientific Reports*, **2017**, 7, 42731	4.9	66
98	Corrosion of carbon steel under sequential aerobic–anaerobic environmental conditions. *Corrosion Science*, **2013**, 76, 432-440	6.8	59
97	Sorption and Reduction of Uranium(VI) on Iron Corrosion Products under Reducing Saline Conditions. *Radiochimica Acta*, **1996**, 74, 149-154	1.9	58
96	Surface layers on a borosilicate nuclear waste glass corroded in MgCl2 solution. *Journal of Nuclear Materials*, **1997**, 240, 100-111	3.3	53
95	Isotopic signature and nano-texture of cesium-rich micro-particles: Release of uranium and fission products from the Fukushima Daiichi Nuclear Power Plant. *Scientific Reports*, **2017**, 7, 5409	4.9	49
94	Interaction of Eu(III)/Cm(III) with alumina-bound poly(acrylic acid): sorption, desorption, and spectroscopic studies. *Environmental Science & Technology*, **2004**, 38, 4312-8	10.3	48
93	Uranium Dioxides and Debris Fragments Released to the Environment with Cesium-Rich Microparticles from the Fukushima Daiichi Nuclear Power Plant. *Environmental Science & Technology*, **2018**, 52, 2586-2594	10.3	47

92	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
91	Dissolution mechanism of the SON68 reference nuclear waste glass: New data in dynamic system in silica saturation conditions. *Journal of Nuclear Materials*, **2011**, 415, 31-37	3.3	47
90	On the mobility and potential retention of iodine in the Callovian–Oxfordian formation. *Physics and Chemistry of the Earth*, **2007**, 32, 539-551	3	46
89	Study of the interaction of Ni2+ and Cs+ on MX-80 bentonite; effect of compaction using the "capillary method". *Environmental Science & Technology*, **2006**, 40, 4672-9	10.3	44
88	Geological Disposal of Radioactive Waste in Clay. *Elements*, **2016**, 12, 239-245	3.8	42
87	Novel Method of Quantifying Radioactive Cesium-Rich Microparticles (CsMPs) in the Environment from the Fukushima Daiichi Nuclear Power Plant. *Environmental Science & Technology*, **2018**, 52, 6390-6398	10.3	35
86	Microbial corrosion of P235GH steel under geological conditions. *Physics and Chemistry of the Earth*, **2010**, 35, 248-253	3	34
85	The effect of high power ultrasound on an aqueous suspension of graphite. *Ultrasonics Sonochemistry*, **2010**, 17, 391-8	8.9	33
84	Key factors to understand in-situ behavior of Cs in Callovo–Oxfordian clay-rock (France). *Chemical Geology*, **2014**, 387, 47-58	4.2	28
83	Selenide retention onto pyrite under reducing conditions. *Radiochimica Acta*, **2008**, 96, 473-479	1.9	28
82	Synthesis and characterization of nanometric powders of UO2+x, (Th,U)O2+x and (La,U)O2+x. *Journal of Solid State Chemistry*, **2009**, 182, 2591-2597	3.3	27
81	Modelling the alteration gel composition of simplified borosilicate glasses by precipitation of an ideal solid solution in equilibrium with the leachant. *Journal of Nuclear Materials*, **2004**, 324, 97-115	3.3	27
80	Surface site density, silicic acid retention and transport properties of compacted magnetite powder. *Physics and Chemistry of the Earth*, **2008**, 33, 991-999	3	26
79	Interaction of selenite with MX-80 bentonite: Effect of minor phases, pH, selenite loading, solution composition and compaction. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2009**, 332, 71-77	5.1	25
78	Sorption of Cs, Ni, Pb, Eu(III), Am(III), Cm, Ac(III), Tc(IV), Th, Zr, and U(IV) on MX 80 bentonite: An experimental approach to assess model uncertainty. *Radiochimica Acta*, **2006**, 94, 627-636	1.9	24
77	Weathered Basalt Glass: A Natural Analogue for the Effects of Reaction Progress on Nuclear Waste Glass Alteration. *Materials Research Society Symposia Proceedings*, **1985**, 50, 263		24
76	Interactions between Nuclear Fuel and Water at the Fukushima Daiichi Reactors. *Elements*, **2012**, 8, 213-219	3.8	23
75	Speciation of technetium and rhenium complexes by in situ XAS-electrochemistry. *Radiochimica Acta*, **2006**, 94, 283-289	1.9	23

74	GLAMOR – Or How We Achieved a Common Understanding on the Decrease of Glass Dissolution Kinetics. *Ceramic Transactions*,115-126	0.1	23
73	Effects of ionizing radiation on the hollandite structure-type: Ba0.85Cs0.26Al1.35Fe0.77Ti5.90O16. *American Mineralogist*, **2008**, 93, 241-247	2.9	21
72	Abundance and distribution of radioactive cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant into the environment. *Chemosphere*, **2020**, 241, 125019	8.4	21
71	Dissolution of radioactive, cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant in simulated lung fluid, pure-water, and seawater. *Chemosphere*, **2019**, 233, 633-644	8.4	20
70	H2 production by α and He ions water radiolysis, effect of presence TiO2 nanoparticles. *International Journal of Hydrogen Energy*, **2011**, 36, 14342-14348	6.7	20
69	Comparison of complexed species of Eu in alumina-bound and free polyacrylic acid: a spectroscopic study. *Journal of Colloid and Interface Science*, **2006**, 300, 482-90	9.3	20
68	Discrepancies in thorium oxide solubility values: study of attachment/detachment processes at the solid/solution interface. *Inorganic Chemistry*, **2010**, 49, 8736-48	5.1	18
67	Porosities accessible to HTO and iodide on water-saturated compacted clay materials and relation with the forms of water: A low field proton NMR study. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 7290-7302	5.5	18
66	Particulate plutonium released from the Fukushima Daiichi meltdowns. *Science of the Total Environment*, **2020**, 743, 140539	10.2	17
65	Studies of (Cs,Ba)-hollandite dissolution under gamma irradiation at 95°C and at pH 2.5, 4.4 and 8.6. *Journal of Nuclear Materials*, **2011**, 419, 281-290	3.3	16
64	Geological disposal of nuclear waste: II. From laboratory data to the safety analysis – Addressing societal concerns. *Applied Geochemistry*, **2014**, 49, 247-258	3.5	15
63	Nuclear waste disposal: I. Laboratory simulation of repository properties. *Applied Geochemistry*, **2014**, 49, 237-246	3.5	14
62	Oxidation and dissolution rates of UO2(s) in carbonate-rich solutions under external alpha irradiation and initially reducing conditions. *Radiochimica Acta*, **2006**, 94, 567-573	1.9	14
61	State of Fukushima nuclear fuel debris tracked by Cs137 in cooling water. *Environmental Sciences: Processes and Impacts*, **2014**, 16, 2472-6	4.3	13
60	Sorption of selenite in a multi-component system using the "dialysis membrane" method. *Applied Geochemistry*, **2012**, 27, 2524-2532	3.5	13
59	Solution controls for dissolved silica at 25, 50 and 90 °C for quartz, Callovo-Oxfordian claystone, illite and MX80 bentonite. *Physics and Chemistry of the Earth*, **2011**, 36, 1648-1660	3	13
58	SON68 glass alteration under Si-rich solutions at low temperature (35–90 °C): kinetics, secondary phases and isotopic exchange studies. *RSC Advances*, **2016**, 6, 72616-72633	3.7	12
57	Retention of iodide by the Callovo-Oxfordian formation: An experimental study. *Applied Clay Science*, **2014**, 87, 142-149	5.2	12

56	Minimization of absorption contrast for accurate amorphous phase quantification: application to ZrO2nanoparticles. *Journal of Applied Crystallography*, **2010**, 43, 1092-1099	3.8	12
55	Continuous Liquid-Liquid Extraction of Uranium from Uranium-containing Wastewater Using an Organic Phase-refining-type Emulsion Flow Extractor. *Analytical Sciences*, **2018**, 34, 1099-1102	1.7	12
54	Redox-active phases and radionuclide equilibrium valence state in subsurface environments □New insights from 6th EC FP IP FUNMIG. *Applied Geochemistry*, **2012**, 27, 404-413	3.5	11
53	Thermodynamic interpretation of neptunium coprecipitation in uranophane for application to the Yucca Mountain repository. *Radiochimica Acta*, **2008**, 96, 563-567	1.9	11
52	Condensation mechanisms of tetravalent technetium in chloride media. *Radiochimica Acta*, **2006**, 94, 291-299	1.9	11
51	Immobilization of inert TRISO-coated fuel in glass for geological disposal. *Journal of Nuclear Materials*, **2006**, 358, 1-9	3.3	11
50	Kinetic study and structural evolution of SON68 nuclear waste glass altered from 35 to 125 □C under unsaturated H2O and D2O18 vapour conditions. *Corrosion Science*, **2018**, 134, 1-16	6.8	10
49	Non-disturbing characterization of natural organic matter (NOM) contained in clay rock pore water by mass spectrometry using electrospray and atmospheric pressure chemical ionization modes. *Rapid Communications in Mass Spectrometry*, **2010**, 24, 191-202	2.2	10
48	Coupling of Chemical Processes in the Near Field. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		10
47	Retention and diffusion of radioactive and toxic species on cementitious systems: Main outcome of the CEBAMA project. *Applied Geochemistry*, **2020**, 112, 104480	3.5	10
46	Effect of Callovo-Oxfordian clay rock on the dissolution rate of the SON68 simulated nuclear waste glass. *Journal of Nuclear Materials*, **2015**, 459, 291-300	3.3	9
45	Adsorption and transport of polymaleic acid on Callovo-Oxfordian clay stone: batch and transport experiments. *Journal of Contaminant Hydrology*, **2014**, 164, 308-22	3.9	9
44	Quantitative description and local structures of trivalent metal ions Eu(III) and Cm(III) complexed with polyacrylic acid. *Journal of Colloid and Interface Science*, **2008**, 327, 324-32	9.3	9
43	Coprecipitation of thorium and lanthanum with UO2+x(s) as host phase. *Radiochimica Acta*, **2006**, 94, 517-522	1.9	9
42	Assessment of the relevance of Coffinite formation within the near-field environment of spent nuclear fuel geological disposals. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		9
41	Adsorption mechanism of ReO4□on Ni□n layered hydroxide salt and its application to removal of ReO4□as a surrogate of TcO4□*Applied Clay Science*, **2019**, 182, 105282	5.2	8
40	HTR Fuel Waste Management: TRISO separation and acid-graphite intercalation compounds preparation. *Journal of Nuclear Materials*, **2010**, 407, 71-77	3.3	8
39	Discrepancies in thorium oxide solubility values: a new experimental approach to improve understanding of oxide surface at solid/solution interface. *Radiochimica Acta*, **2008**, 96, 515-520	1.9	8

38	Characterisation of thermally altered cement pastes. Influence on selenite sorption. *Advances in Cement Research*, **2007**, 19, 157-165	1.8	8
37	Uranium quantification of oak tree rings (Quercus petraea) from a former uranium mining site by High Resolution Inductively Coupled Plasma Mass spectrometry in Laser Ablation and Solution modes. *Spectrochimica Acta, Part B: Atomic Spectroscopy*, **2019**, 161, 105709	3.1	8
36	Thermodynamic Approach for Predicting Actinide and Rare Earth Concentrations in Leachates from Radioactive Waste Glasses. *Journal of Solution Chemistry*, **2011**, 40, 1473-1504	1.8	7
35	Thermodynamic data of adsorption reveal the entry of CH and CO in a smectite clay interlayer. *Physical Chemistry Chemical Physics*, **2020**, 22, 16727-16733	3.6	6
34	Study on coordination structure of Re adsorbed on MgAl layered double hydroxide using X-ray absorption fine structure. *Journal of Porous Materials*, **2019**, 26, 505-511	2.4	6
33	Size Distribution of Droplets in a Two Liquid-phase Mixture Compared between Liquid Spraying and Mechanical Stirring. *Analytical Sciences*, **2019**, 35, 955-960	1.7	6
32	Influence of gamma irradiation on uranium determination by Arsenazo III in the presence of Fe(II)/Fe(III). *Chemosphere*, **2014**, 107, 373-378	8.4	6
31	Spent Fuel Waste Disposal: Analyses of Model Uncertainty in the MICADO Project. *Energy Procedia*, **2011**, 7, 487-494	2.3	6
30	Structural investigation of coprecipitation of technetium-99 with iron phases. *Radiochimica Acta*, **2008**, 96, 569-574	1.9	6
29	Correlation between X-ray chemical shift and partial charge in Tc(IV) complexes: Determination of Tc partial charge in TcnOy(4n-2y)+. *Radiochimica Acta*, **2006**, 94, 559-563	1.9	6
28	Smectite fraction assessment in complex natural clay rocks from interlayer water content determined by thermogravimetric and thermoporometry analysis. *Journal of Colloid and Interface Science*, **2019**, 555, 157-165	9.3	5
27	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
26	The Role of Water Diffusion in the Corrosion of the French Nuclear Waste Glass SON 68 under Solution Saturation Conditions. *Materials Research Society Symposia Proceedings*, **2003**, 807, 529		5
25	Nickel Retention on Callovo-Oxfordian Clay: Applicability of Existing Adsorption Models for Dilute Systems to Real Compact Rock. *Environmental Science & Technology*, **2020**, 54, 12226-12234	10.3	5
24	New highly radioactive particles derived from Fukushima Daiichi Reactor Unit 1: Properties and environmental impacts. *Science of the Total Environment*, **2021**, 773, 145639	10.2	5
23	Complexation of Eu(III), Pb(II), and U(VI) with a Paramecium glycoprotein: Microbial transformation of heavy elements in the aquatic environment. *Chemosphere*, **2018**, 196, 135-144	8.4	3
22	Aqueous alteration of VHTR fuels particles under simulated geological conditions. *Journal of Nuclear Materials*, **2014**, 448, 206-216	3.3	3
21	Solubility equilibrium and surface reactivity at solid/liquid interfaces of relevance to disposal of nuclear waste. *Journal of Chemical Thermodynamics*, **2017**, 114, 172-181	2.9	3

20	Source Trends for Performance Assessment of HLW Glass and Spent Fuel as Waste Forms. *Materials Research Society Symposia Proceedings*, **1997**, 506, 141		3
19	Modeling the complexation properties of mineral-bound organic polyelectrolyte: an attempt at comprehension using the model system alumina/polyacrylic acid/M (M=Eu, Cm, Gd). *Journal of Colloid and Interface Science*, **2007**, 305, 32-9	9.3	3
18	Photochemical behaviour of Tc2OCl104□and TcnOy4n□2y+ in chloride media. *Radiochimica Acta*, **2006**, 94, 91-95	1.9	3
17	Ten years after the NPP accident at Fukushima : review on fuel debris behavior in contact with water. *Journal of Nuclear Science and Technology*,1-24	1	3
16	New Synthesis Route and Characterization of Siderite (FeCO3) and Coprecipitation of 99Tc. *Materials Research Society Symposia Proceedings*, **2006**, 985, 1		2
15	New Methods for HTR Fuel Waste Management **2008**,		2
14	CARBOWASTE: New EURATOM Project on □reatment and Disposal of Irradiated Graphite and Other Carbonaceous Waste□**2008**,		2
13	On the use of manometry method for measurement of gas adsorption equilibria and characterization of clay texture with Derivative Isotherm Summation. *Applied Clay Science*, **2020**, 184, 105372	5.2	2
12	An integrated approach combining soil profile, records and tree ring analysis to identify the origin of environmental contamination in a former uranium mine (Rophin, France). *Science of the Total Environment*, **2020**, 747, 141295	10.2	2
11	Alteration of 29Si-doped SON68 borosilicate nuclear waste glass in the presence of near field materials. *Applied Geochemistry*, **2019**, 111, 104436	3.5	2
10	Aquatic chemistry of long-lived mobile fission and activation products in the context of deep geological disposal **2012**, 70-102		1
9	Chemical Durability of Glasses. *Springer Handbooks*, **2019**, 407-438	1.3	1
8	Direct Experimental Evidence of the Effects of Clay Particles□Basal-to-Lateral Surface Ratio on Methane and Carbon Dioxide Adsorption. *Journal of Physical Chemistry C*, **2021**, 125, 11499-11507	3.8	1
7	Solubility of monoclinic and yttrium stabilized cubic ZrO2: Solution and surface thermodynamics guiding ultra-trace analytics in aqueous phase. *Journal of Nuclear Materials*, **2021**, 545, 152631	3.3	1
6	Effect of bacterial siderophore on cesium dissolution from biotite. *Chemosphere*, **2021**, 276, 130121	8.4	1
5	Volatilization of BC control rods in Fukushima Daiichi nuclear reactors during meltdown: B-Li isotopic signatures in cesium-rich microparticles.. *Journal of Hazardous Materials*, **2022**, 428, 128214	12.8	0
4	Radiocesium in Shiitake mushroom: Accumulation in living fruit bodies and leaching from dead fruit bodies. *Chemosphere*, **2021**, 279, 130511	8.4	0
3	Leaching behaviour of non-irradiated and irradiated HTR UO2-ThO2 fuel particles under reducing conditions. *Materials Research Society Symposia Proceedings*, **2006**, 932, 1		

2 Spent nuclear fuel long term behavior and performance **2021**, 577-587

1 Ceramic Coated Particles for Safe Operation in HTRs and in Long-Term Storage. *Ceramic Engineering and Science Proceedings*,193-202 0.1