

Bernd Grambow

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Volatilization of BC control rods in Fukushima Daiichi nuclear reactors during meltdown: B-Li isotopic signatures in cesium-rich microparticles.. <i>Journal of Hazardous Materials</i> , 2022 , 428, 128214	12.8	0
108	Direct Experimental Evidence of the Effects of Clay Particles on Basal-to-Lateral Surface Ratio on Methane and Carbon Dioxide Adsorption. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 11499-11507	3.8	1
107	New highly radioactive particles derived from Fukushima Daiichi Reactor Unit 1: Properties and environmental impacts. <i>Science of the Total Environment</i> , 2021 , 773, 145639	10.2	5
106	Solubility of monoclinic and yttrium stabilized cubic ZrO ₂ : Solution and surface thermodynamics guiding ultra-trace analytics in aqueous phase. <i>Journal of Nuclear Materials</i> , 2021 , 545, 152631	3.3	1
105	Spent nuclear fuel long term behavior and performance 2021 , 577-587		
104	Effect of bacterial siderophore on cesium dissolution from biotite. <i>Chemosphere</i> , 2021 , 276, 130121	8.4	1
103	Radiocesium in Shiitake mushroom: Accumulation in living fruit bodies and leaching from dead fruit bodies. <i>Chemosphere</i> , 2021 , 279, 130511	8.4	0
102	Thermodynamic data of adsorption reveal the entry of CH and CO in a smectite clay interlayer. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 16727-16733	3.6	6
101	Particulate plutonium released from the Fukushima Daiichi meltdowns. <i>Science of the Total Environment</i> , 2020 , 743, 140539	10.2	17
100	On the use of manometry method for measurement of gas adsorption equilibria and characterization of clay texture with Derivative Isotherm Summation. <i>Applied Clay Science</i> , 2020 , 184, 105372	5.2	2
99	Retention and diffusion of radioactive and toxic species on cementitious systems: Main outcome of the CEBAMA project. <i>Applied Geochemistry</i> , 2020 , 112, 104480	3.5	10
98	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). <i>Science of the Total Environment</i> , 2020 , 747, 141295	10.2	2
97	Nickel Retention on Callovo-Oxfordian Clay: Applicability of Existing Adsorption Models for Dilute Systems to Real Compact Rock. <i>Environmental Science & Technology</i> , 2020 , 54, 12226-12234	10.3	5
96	Abundance and distribution of radioactive cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant into the environment. <i>Chemosphere</i> , 2020 , 241, 125019	8.4	21
95	Smectite fraction assessment in complex natural clay rocks from interlayer water content determined by thermogravimetric and thermoporometry analysis. <i>Journal of Colloid and Interface Science</i> , 2019 , 555, 157-165	9.3	5
94	Dissolution of radioactive, cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant in simulated lung fluid, pure-water, and seawater. <i>Chemosphere</i> , 2019 , 233, 633-644	8.4	20
93	Study on coordination structure of Re adsorbed on Mg/Al layered double hydroxide using X-ray absorption fine structure. <i>Journal of Porous Materials</i> , 2019 , 26, 505-511	2.4	6

92	Size Distribution of Droplets in a Two Liquid-phase Mixture Compared between Liquid Spraying and Mechanical Stirring. <i>Analytical Sciences</i> , 2019 , 35, 955-960	1.7	6
91	Adsorption mechanism of $\text{ReO}_4^-/\text{Ni}^{2+}$ layered hydroxide salt and its application to removal of ReO_4^- as a surrogate of TcO_4^- . <i>Applied Clay Science</i> , 2019 , 182, 105282	5.2	8
90	Chemical Durability of Glasses. <i>Springer Handbooks</i> , 2019 , 407-438	1.3	1
89	Uranium quantification of oak tree rings (<i>Quercus petraea</i>) from a former uranium mining site by High Resolution Inductively Coupled Plasma Mass spectrometry in Laser Ablation and Solution modes. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019 , 161, 105709	3.1	8
88	Alteration of ^{29}Si -doped SON68 borosilicate nuclear waste glass in the presence of near field materials. <i>Applied Geochemistry</i> , 2019 , 111, 104436	3.5	2
87	Uranium Dioxides and Debris Fragments Released to the Environment with Cesium-Rich Microparticles from the Fukushima Daiichi Nuclear Power Plant. <i>Environmental Science & Technology</i> , 2018 , 52, 2586-2594	10.3	47
86	Complexation of Eu(III) , Pb(II) , and U(VI) with a Paramecium glycoprotein: Microbial transformation of heavy elements in the aquatic environment. <i>Chemosphere</i> , 2018 , 196, 135-144	8.4	3
85	Kinetic study and structural evolution of SON68 nuclear waste glass altered from 35 to 125 $^{\circ}\text{C}$ under unsaturated H_2O and D_2O vapour conditions. <i>Corrosion Science</i> , 2018 , 134, 1-16	6.8	10
84	Continuous Liquid-Liquid Extraction of Uranium from Uranium-containing Wastewater Using an Organic Phase-refining-type Emulsion Flow Extractor. <i>Analytical Sciences</i> , 2018 , 34, 1099-1102	1.7	12
83	Novel Method of Quantifying Radioactive Cesium-Rich Microparticles (CsMPs) in the Environment from the Fukushima Daiichi Nuclear Power Plant. <i>Environmental Science & Technology</i> , 2018 , 52, 6390-6398	10.3	35
82	Caesium-rich micro-particles: A window into the meltdown events at the Fukushima Daiichi Nuclear Power Plant. <i>Scientific Reports</i> , 2017 , 7, 42731	4.9	66
81	Isotopic signature and nano-texture of cesium-rich micro-particles: Release of uranium and fission products from the Fukushima Daiichi Nuclear Power Plant. <i>Scientific Reports</i> , 2017 , 7, 5409	4.9	49
80	Solubility equilibrium and surface reactivity at solid/liquid interfaces of relevance to disposal of nuclear waste. <i>Journal of Chemical Thermodynamics</i> , 2017 , 114, 172-181	2.9	3
79	SON68 glass alteration under Si-rich solutions at low temperature (35 $^{\circ}\text{C}$): kinetics, secondary phases and isotopic exchange studies. <i>RSC Advances</i> , 2016 , 6, 72616-72633	3.7	12
78	Geological Disposal of Radioactive Waste in Clay. <i>Elements</i> , 2016 , 12, 239-245	3.8	42
77	Effect of Callovo-Oxfordian clay rock on the dissolution rate of the SON68 simulated nuclear waste glass. <i>Journal of Nuclear Materials</i> , 2015 , 459, 291-300	3.3	9
76	Key factors to understand in-situ behavior of Cs in Callovo-Oxfordian clay-rock (France). <i>Chemical Geology</i> , 2014 , 387, 47-58	4.2	28
75	Adsorption and transport of polymaleic acid on Callovo-Oxfordian clay stone: batch and transport experiments. <i>Journal of Contaminant Hydrology</i> , 2014 , 164, 308-22	3.9	9

74	Aqueous alteration of VHTR fuels particles under simulated geological conditions. <i>Journal of Nuclear Materials</i> , 2014 , 448, 206-216	3.3	3
73	Geological disposal of nuclear waste: II. From laboratory data to the safety analysis [Addressing societal concerns. <i>Applied Geochemistry</i> , 2014 , 49, 247-258	3.5	15
72	State of Fukushima nuclear fuel debris tracked by Cs137 in cooling water. <i>Environmental Sciences: Processes and Impacts</i> , 2014 , 16, 2472-6	4.3	13
71	Nuclear waste disposal: I. Laboratory simulation of repository properties. <i>Applied Geochemistry</i> , 2014 , 49, 237-246	3.5	14
70	Influence of gamma irradiation on uranium determination by Arsenazo III in the presence of Fe(II)/Fe(III). <i>Chemosphere</i> , 2014 , 107, 373-378	8.4	6
69	Retention of iodide by the Callovo-Oxfordian formation: An experimental study. <i>Applied Clay Science</i> , 2014 , 87, 142-149	5.2	12
68	Corrosion of carbon steel under sequential aerobic/anaerobic environmental conditions. <i>Corrosion Science</i> , 2013 , 76, 432-440	6.8	59
67	Aquatic chemistry of long-lived mobile fission and activation products in the context of deep geological disposal 2012 , 70-102		1
66	Redox-active phases and radionuclide equilibrium valence state in subsurface environments [New insights from 6th EC FP IP FUNMIG. <i>Applied Geochemistry</i> , 2012 , 27, 404-413	3.5	11
65	Interactions between Nuclear Fuel and Water at the Fukushima Daiichi Reactors. <i>Elements</i> , 2012 , 8, 213-219	3.19	23
64	Sorption of selenite in a multi-component system using the dialysis membrane method. <i>Applied Geochemistry</i> , 2012 , 27, 2524-2532	3.5	13
63	Vapor hydration of SON68 glass from 90°C to 200°C: A kinetic study and corrosion products investigation. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 2894-2905	3.9	47
62	Spent Fuel Waste Disposal: Analyses of Model Uncertainty in the MICADO Project. <i>Energy Procedia</i> , 2011 , 7, 487-494	2.3	6
61	Solution controls for dissolved silica at 25, 50 and 90 °C for quartz, Callovo-Oxfordian claystone, illite and MX80 bentonite. <i>Physics and Chemistry of the Earth</i> , 2011 , 36, 1648-1660	3	13
60	Studies of (Cs,Ba)-hollandite dissolution under gamma irradiation at 95°C and at pH 2.5, 4.4 and 8.6. <i>Journal of Nuclear Materials</i> , 2011 , 419, 281-290	3.3	16
59	H ₂ production by α and He ions water radiolysis, effect of presence TiO ₂ nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 14342-14348	6.7	20
58	Thermodynamic Approach for Predicting Actinide and Rare Earth Concentrations in Leachates from Radioactive Waste Glasses. <i>Journal of Solution Chemistry</i> , 2011 , 40, 1473-1504	1.8	7
57	Dissolution mechanism of the SON68 reference nuclear waste glass: New data in dynamic system in silica saturation conditions. <i>Journal of Nuclear Materials</i> , 2011 , 415, 31-37	3.3	47

56	Microbial corrosion of P235GH steel under geological conditions. <i>Physics and Chemistry of the Earth</i> , 2010 , 35, 248-253	3	34
55	Discrepancies in thorium oxide solubility values: study of attachment/detachment processes at the solid/solution interface. <i>Inorganic Chemistry</i> , 2010 , 49, 8736-48	5.1	18
54	HTR Fuel Waste Management: TRISO separation and acid-graphite intercalation compounds preparation. <i>Journal of Nuclear Materials</i> , 2010 , 407, 71-77	3.3	8
53	The effect of high power ultrasound on an aqueous suspension of graphite. <i>Ultrasonics Sonochemistry</i> , 2010 , 17, 391-8	8.9	33
52	Minimization of absorption contrast for accurate amorphous phase quantification: application to ZrO ₂ nanoparticles. <i>Journal of Applied Crystallography</i> , 2010 , 43, 1092-1099	3.8	12
51	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. <i>Rapid Communications in Mass Spectrometry</i> , 2010 , 24, 191-202	2.2	10
50	Synthesis and characterization of nanometric powders of UO _{2+x} , (Th,U)O _{2+x} and (La,U)O _{2+x} . <i>Journal of Solid State Chemistry</i> , 2009 , 182, 2591-2597	3.3	27
49	Interaction of selenite with MX-80 bentonite: Effect of minor phases, pH, selenite loading, solution composition and compaction. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2009 , 332, 71-77	5.1	25
48	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. <i>Geochimica Et Cosmochimica Acta</i> , 2009 , 73, 7290-7302	5.5	18
47	Eu(III) sorption to TiO ₂ (anatase and rutile): batch, XPS, and EXAFS studies. <i>Environmental Science & Technology</i> , 2009 , 43, 3115-21	10.3	320
46	Mobile fission and activation products in nuclear waste disposal. <i>Journal of Contaminant Hydrology</i> , 2008 , 102, 180-6	3.9	85
45	Discrepancies in thorium oxide solubility values: a new experimental approach to improve understanding of oxide surface at solid/solution interface. <i>Radiochimica Acta</i> , 2008 , 96, 515-520	1.9	8
44	Surface site density, silicic acid retention and transport properties of compacted magnetite powder. <i>Physics and Chemistry of the Earth</i> , 2008 , 33, 991-999	3	26
43	Selenide retention onto pyrite under reducing conditions. <i>Radiochimica Acta</i> , 2008 , 96, 473-479	1.9	28
42	Thermodynamic interpretation of neptunium coprecipitation in uranophane for application to the Yucca Mountain repository. <i>Radiochimica Acta</i> , 2008 , 96, 563-567	1.9	11
41	Structural investigation of coprecipitation of technetium-99 with iron phases. <i>Radiochimica Acta</i> , 2008 , 96, 569-574	1.9	6
40	Effects of ionizing radiation on the hollandite structure-type: Ba _{0.85} Cs _{0.26} Al _{1.35} Fe _{0.77} Ti ₅ .90O ₁₆ . <i>American Mineralogist</i> , 2008 , 93, 241-247	2.9	21
39	Quantitative description and local structures of trivalent metal ions Eu(III) and Cm(III) complexed with polyacrylic acid. <i>Journal of Colloid and Interface Science</i> , 2008 , 327, 324-32	9.3	9

38	New Methods for HTR Fuel Waste Management 2008 ,		2
37	CARBOWASTE: New EURATOM Project on Treatment and Disposal of Irradiated Graphite and Other Carbonaceous Waste 2008 ,		2
36	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). <i>Journal of Colloid and Interface Science</i> , 2007 , 305, 32-9	9.3	3
35	Characterisation of thermally altered cement pastes. Influence on selenite sorption. <i>Advances in Cement Research</i> , 2007 , 19, 157-165	1.8	8
34	On the mobility and potential retention of iodine in the Callovian-Oxfordian formation. <i>Physics and Chemistry of the Earth</i> , 2007 , 32, 539-551	3	46
33	Behaviour of spent HTR fuel elements in aquatic phases of repository host rock formations. <i>Nuclear Engineering and Design</i> , 2006 , 236, 543-554	1.8	86
32	Leaching behaviour of non-irradiated and irradiated HTR UO ₂ -ThO ₂ fuel particles under reducing conditions. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 932, 1		
31	Coupling of Chemical Processes in the Near Field. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 932, 1		10
30	Chemical durability of high-level waste glass in repository environment: main conclusions and remaining uncertainties from the GLASTAB and GLAMOR projects. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 932, 1		5
29	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. <i>Radiochimica Acta</i> , 2006 , 94, 627-636	1.9	24
28	Photochemical behaviour of Tc ₂ OCl ₁₀ and Tc _n O _y 4n-2y ⁺ in chloride media. <i>Radiochimica Acta</i> , 2006 , 94, 91-95	1.9	3
27	Speciation of technetium and rhenium complexes by in situ XAS-electrochemistry. <i>Radiochimica Acta</i> , 2006 , 94, 283-289	1.9	23
26	Condensation mechanisms of tetravalent technetium in chloride media. <i>Radiochimica Acta</i> , 2006 , 94, 291-299	1.9	11
25	Coprecipitation of thorium and lanthanum with UO ₂ +x(s) as host phase. <i>Radiochimica Acta</i> , 2006 , 94, 517-522	1.9	9
24	Correlation between X-ray chemical shift and partial charge in Tc(IV) complexes: Determination of Tc partial charge in Tc _n O _y (4n-2y) ⁺ . <i>Radiochimica Acta</i> , 2006 , 94, 559-563	1.9	6
23	Oxidation and dissolution rates of UO ₂ (s) in carbonate-rich solutions under external alpha irradiation and initially reducing conditions. <i>Radiochimica Acta</i> , 2006 , 94, 567-573	1.9	14
22	Assessment of the relevance of Coffinite formation within the near-field environment of spent nuclear fuel geological disposals. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 932, 1		9
21	New Synthesis Route and Characterization of Siderite (FeCO ₃) and Coprecipitation of ⁹⁹ Tc. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 985, 1		2

20	Nuclear Waste Glasses - How Durable?. <i>Elements</i> , 2006 , 2, 357-364	3.8	129
19	Study of the interaction of Ni ²⁺ and Cs ⁺ on MX-80 bentonite; effect of compaction using the "capillary method". <i>Environmental Science & Technology</i> , 2006 , 40, 4672-9	10.3	44
18	Water diffusion in the simulated French nuclear waste glass SON 68 contacting silica rich solutions: Experimental and modeling. <i>Journal of Nuclear Materials</i> , 2006 , 355, 54-67	3.3	83
17	Immobilization of inert TRISO-coated fuel in glass for geological disposal. <i>Journal of Nuclear Materials</i> , 2006 , 358, 1-9	3.3	11
16	Comparison of complexed species of Eu in alumina-bound and free polyacrylic acid: a spectroscopic study. <i>Journal of Colloid and Interface Science</i> , 2006 , 300, 482-90	9.3	20
15	Modelling the alteration gel composition of simplified borosilicate glasses by precipitation of an ideal solid solution in equilibrium with the leachant. <i>Journal of Nuclear Materials</i> , 2004 , 324, 97-115	3.3	27
14	Interaction of Eu(III)/Cm(III) with alumina-bound poly(acrylic acid): sorption, desorption, and spectroscopic studies. <i>Environmental Science & Technology</i> , 2004 , 38, 4312-8	10.3	48
13	Study of the interaction between europium (III) and <i>Bacillus subtilis</i> : fixation sites, biosorption modeling and reversibility. <i>Journal of Colloid and Interface Science</i> , 2003 , 262, 351-61	9.3	68
12	The Role of Water Diffusion in the Corrosion of the French Nuclear Waste Glass SON 68 under Solution Saturation Conditions. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 807, 529		5
11	Complexation studies of Eu(III) with alumina-bound polymaleic acid: effect of organic polymer loading and metal ion concentration. <i>Environmental Science & Technology</i> , 2002 , 36, 3303-9	10.3	96
10	First-order dissolution rate law and the role of surface layers in glass performance assessment. <i>Journal of Nuclear Materials</i> , 2001 , 298, 112-124	3.3	198
9	Source Trends for Performance Assessment of HLW Glass and Spent Fuel as Waste Forms. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 506, 141		3
8	Surface layers on a borosilicate nuclear waste glass corroded in MgCl ₂ solution. <i>Journal of Nuclear Materials</i> , 1997 , 240, 100-111	3.3	53
7	Sorption and Reduction of Uranium(VI) on Iron Corrosion Products under Reducing Saline Conditions. <i>Radiochimica Acta</i> , 1996 , 74, 149-154	1.9	58
6	Chemical corrosion of highly radioactive borosilicate nuclear waste glass under simulated repository conditions. <i>Journal of Materials Research</i> , 1990 , 5, 1130-1146	2.5	81
5	Weathered Basalt Glass: A Natural Analogue for the Effects of Reaction Progress on Nuclear Waste Glass Alteration. <i>Materials Research Society Symposia Proceedings</i> , 1985 , 50, 263		24
4	A General Rate Equation for Nuclear Waste Glass Corrosion. <i>Materials Research Society Symposia Proceedings</i> , 1984 , 44, 15		167
3	Ten years after the NPP accident at Fukushima : review on fuel debris behavior in contact with water. <i>Journal of Nuclear Science and Technology</i> , 1-24	1	3

2	GLAMOR Or How We Achieved a Common Understanding on the Decrease of Glass Dissolution Kinetics. <i>Ceramic Transactions</i> ,115-126	0.1	23
1	Ceramic Coated Particles for Safe Operation in HTRs and in Long-Term Storage. <i>Ceramic Engineering and Science Proceedings</i> ,193-202	0.1	