Jordi Bruno

List of Publications by Year
in descending order

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66 papers	2,381 citations	218677 26 h-index	214800 47 g-index
66 all docs	66 docs citations	66 times ranked	1866 citing authors

#	Article	IF	Citations
1	Spent Nuclear Fuel. Elements, 2006, 2, 343-349.	0.5	232
2	The solubility of (UO2)3(PO4)2 Â· 4H2O(s) and the formation of U(VI) phosphate complexes: Their influence in uranium speciation in natural waters. Geochimica Et Cosmochimica Acta, 1992, 56, 4135-4145.	3.9	183
3	The oxidative dissolution mechanism of uranium dioxide. I. The effect of temperature in hydrogen carbonate medium. Geochimica Et Cosmochimica Acta, 1999, 63, 3097-3103.	3.9	126
4	On the influence of carbonate on mineral dissolution: III. The solubility of microcrystalline ThO2 in CO2-H2O media. Geochimica Et Cosmochimica Acta, 1994, 58, 613-623.	3.9	117
5	The kinetics of dissolution of UO2 under reducing conditions and the influence of an oxidized surface layer (UO2+x): Application of a continuous flow-through reactor. Geochimica Et Cosmochimica Acta, 1991, 55, 647-658.	3.9	116
6	Experimental study and modeling of the U(VI)-Fe(OH)3 surface precipitation/coprecipitation equilibria. Geochimica Et Cosmochimica Acta, 1995, 59, 4113-4123.	3.9	114
7	On the influence of carbonate in mineral dissolution: II. The solubility of FeCO3 (s) at 25Â°C and 1 atm total pressure. Geochimica Et Cosmochimica Acta, 1992, 56, 1149-1155.	3.9	113
8	The role of pe, pH, and carbonate on the solubility of UO2 and uraninite under nominally reducing conditions. Geochimica Et Cosmochimica Acta, 1998, 62, 2223-2231.	3.9	110
9	On the influence of carbonate in mineral dissolution: I. The thermodynamics and kinetics of hematite dissolution in bicarbonate solutions at. Geochimica Et Cosmochimica Acta, 1992, 56, 1139-1147.	3.9	93
10	The dissolution of biotite and chlorite at 25Â°C in the near-neutral pH region. Journal of Contaminant Hydrology, 1996, 21, 201-213.	3.3	83
11	Dissolution of irradiated fuel: a radiolytic mass balance study. Journal of Nuclear Materials, 1995, 227, 76-82.	2.7	59
12	The oxidative dissolution of unirradiated UO2 by hydrogen peroxide as a function of pH. Journal of Nuclear Materials, 2005, 345, 225-231.	2.7	55
13	DFT Studies of Uranyl Acetate, Carbonate, and Malonate, Complexes in Solution. Inorganic Chemistry, 2003, 42, 6136-6141.	4.0	49
14	Denitrification in presence of acetate and glucose for bioremediation of nitrateâ€contaminated groundwater. Environmental Technology (United Kingdom), 2010, 31, 799-814.	2.2	48
15	The corrosion of spent UO2 fuel in synthetic groundwater. Journal of Nuclear Materials, 1986, 138, 1-15.	2.7	45
16	A spectroscopic study of uranium(VI) interaction with magnetite. Applied Surface Science, 2007, 253, 8794-8797.	6.1	44
17	Assessment of the evolution of the redox conditions in a low and intermediate level nuclear waste repository (SFR1, Sweden). Applied Geochemistry, 2014, 49, 192-205.	3.0	40
18	The applicability and limitations of thermodynamic geochemical models to simulate trace element behaviour in natural waters. Lessons learned from natural analogue studies. Chemical Geology, 2002, 190, 371-393.	3.3	39

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19	Experimental study and modeling of the sorption of uranium(VI) onto olivine-rock. Applied Geochemistry, 2002, 17, 399-408.	3.0	36
20	Interaction of uranium with in situ anoxically generated magnetite on steel. Journal of Hazardous Materials, 2007, 147, 726-731.	12.4	36
21	The thermodynamics and kinetics of uranophane dissolution in bicarbonate test solutions. Geochimica Et Cosmochimica Acta, 2000, 64, 603-608.	3.9	34
22	The uranium ore from Mina Fe (Salamanca, Spain) as a natural analogue of processes in a spent fuel repository. Chemical Geology, 2002, 190, 395-415.	3.3	33
23	Sorption of Th(IV) onto Iron Corrosion Products: EXAFS Study. Environmental Science & Technology, 2009, 43, 2825-2830.	10.0	32
24	Oxidation and dissolution of UO2 in bicarbonate media: Implications for the spent nuclear fuel oxidative dissolution mechanism. Journal of Nuclear Materials, 2005, 345, 232-238.	2.7	30
25	Uranium in pore waters from North Atlantic (GME and Southern Nares Abyssal Plain) sediments. Nature, 1988, 331, 155-157.	27.8	29
26	Study of the interaction between U(VI) and the anoxic corrosion products of carbon steel. Applied Geochemistry, 2008, 23, 1094-1100.	3.0	27
27	Radiolytic modelling of spent fuel oxidative dissolution mechanism. Calibration against UO2 dynamic leaching experiments. Journal of Nuclear Materials, 2005, 346, 40-47.	2.7	26
28	Studies of metal carbonate equilibria. 20. Formation of tetra(carbonato)uranium(IV) ion, U(CO3)44â^', in hydrogen carbonate solutions. Inorganica Chimica Acta, 1989, 158, 221-226.	2.4	25
29	Characterization and dissolution behavior of a becquerelite from Shinkolobwe, Zaire. Geochimica Et Cosmochimica Acta, 1997, 61, 3879-3884.	3.9	24
30	Geochemical model of the graniteâ€“bentoniteâ€“groundwater interaction at Ã„spÃ¶ HRL (LOT experiment). Applied Clay Science, 2003, 23, 219-228.	5.2	22
31	The influence of dissolved carbon dioxide on trace metal speciation in seawater. Marine Chemistry, 1990, 30, 231-240.	2.3	21
32	Experimental study and modeling of uranium (VI) transport through ferrous olivine rock columns. Radiochimica Acta, 2000, 88, 665-674.	1.2	21
33	Redox behavior and solubility of plutonium under alkaline, reducing conditions. Radiochimica Acta, 2018, 106, 259-279.	1.2	21
34	Estimation of the concentrations of trace metals in natural systems. Chemical Geology, 1998, 151, 277-291.	3.3	19
35	A kinetic model for the stability of spent fuel matrix under oxic conditions. Journal of Nuclear Materials, 1996, 238, 110-120.	2.7	18
36	Reply to W. Hummelâ€™s comment on and correction to â€œOn the influence of carbonate in mineral dissolution: 1. The thermodynamics and kinetics of hematite dissolution in bicarbonate solutions at T = 25Â°Câ€•by J. Bruno, W. Stumm, P. Wersin, and F. Brandberg. Geochimica Et Cosmochimica Acta, 2000, 64, 2173-2176.	3.9	18

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37	Thermodynamic description of the plutonium â€“ Î±-d-isosaccharinic acid system I: Solubility, complexation and redox behavior. Applied Geochemistry, 2018, 98, 247-264.	3.0	18
38	Testing models of trace element geochemistry at PoÃ§os de Caldas. Journal of Geochemical Exploration, 1992, 45, 451-470.	3.2	17
39	Static and dynamic SIMFUEL dissolution studies under oxic conditions. Journal of Nuclear Materials, 1992, 190, 61-69.	2.7	16
40	Thermodynamic description of the plutonium â€“ Î±â€“dâ€“isosaccharinic acid system ii: Formation of quaternary Ca(II)â€“Pu(IV)â€“OHâ€“ISA complexes. Applied Geochemistry, 2018, 98, 351-366.	3.0	16
41	Plutonium retention in the isosaccharinate â€“ cement system. Applied Geochemistry, 2021, 126, 104862.	3.0	15
42	Experimental determination and chemical modelling of radiolytic processes at the spent fuel/water interface. Radiochimica Acta, 2000, 88, 513-520.	1.2	14
43	The dissolution of high-FeO olivine rock from the LovasjÃrvi intrusion (SE-Finland) at 25Â°C as a function of pH. Applied Geochemistry, 2005, 20, 1284-1291.	3.0	12
44	Thermodynamic model of Ni(II) solubility, hydrolysis and complex formation with ISA. Radiochimica Acta, 2018, 106, 31-45.	1.2	12
45	Redox processes in the safety case of deep geological repositories of radioactive wastes. Contribution of the European RECOSY Collaborative Project. Applied Geochemistry, 2014, 49, 206-217.	3.0	11
46	Development and application of a model for the long-term alteration of UO2 spent nuclear fuel Test of equilibrium and kinetic mass transfer models in the Cigar Lake ore deposit. Journal of Contaminant Hydrology, 1997, 26, 19-26.	3.3	10
47	The long-term effect of hydrogen on the UO2 spent fuel stability under anoxic conditions: Findings from the Cigar Lake Natural Analogue study. Applied Geochemistry, 2014, 49, 178-183.	3.0	10
48	The in-diffusion of 133Ba in granitic rock cubes from the Olkiluoto and Grimsel in-situ test sites. Applied Geochemistry, 2018, 92, 188-195.	3.0	9
49	Geochemical modelling of the weathering zone of the â€œMina Feâ€•U deposit (Spain): A natural analogue for nuclear spent fuel alteration and stability processes in radwaste disposal. Applied Geochemistry, 2008, 23, 807-821.	3.0	8
50	Fe(III) mobilisation by carbonate in low temperature environments: Study of the solubility of ferrihydrite in carbonate media and the formation of Fe(III) carbonate complexes. Applied Geochemistry, 2014, 49, 57-67.	3.0	8
51	Atmospheric dispersion modelling of a natural CO 2 degassing pool from Campo de Calatrava (northeast Spain) natural analogue. Implications for carbon storage risk assessment. International Journal of Greenhouse Gas Control, 2016, 47, 38-47.	4.6	8
52	On the UO2(2+)/U(4+) Redox Potential.. Acta Chemica Scandinavica, 1990, 44, 896-901.	0.7	8
53	Spent Fuel Waste Disposal: Analyses of Model Uncertainty in the MICADO Project. Energy Procedia, 2011, 7, 487-494.	1.8	7
54	Studies on metal carbonate complexes. 19. Complex formation in the Th(IV)î—¸H2Oî—¸CO2(g) system. Inorganica Chimica Acta, 1987, 140, 299-301.	2.4	6

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55	Preliminary study of spent UO2 fuel corrosion in the presence of bentonite. Journal of Nuclear Materials, 1988, 160, 218-223.	2.7	6
56	Evidence of Uranium and Associated Trace Element Mobilization and Retention Processes at Oklo (Gabon), a Naturally Radioactive Site. Environmental Science & Technology, 2004, 38, 3310-3315.	10.0	6
57	Potentiometric techniques applied to the modelling of actinide migration in natural water systemsâ€. Toxicological and Environmental Chemistry, 1985, 10, 257-264.	1.2	4
58	Fission Product Release from Spent UO‹sub›2‹/sub›Fuel Under Uranium-Saturated Oxic Conditions. Nuclear Technology, 1990, 92, 204-213.	1.2	4
59	The use of a high-FeO olivine rock as a redox buffer in a nuclear waste repository. Journal of Contaminant Hydrology, 2006, 83, 42-52.	3.3	4
60	Quantitative assessment of radionuclide retention in the Quaternary sediments/granite interface of the Fennoscandian shield (Sweden). Applied Geochemistry, 2011, 26, 679-687.	3.0	4
61	Determination and uncertainties of radioelement solubility limits to be used by SKB in the SR 97â€™ performance assessment exercise. Radiochimica Acta, 2000, 88, 823-828.	1.2	3
62	From aqueous solution to solid solutions: A process oriented review of the work performed within the FUNMIG project. Applied Geochemistry, 2012, 27, 444-452.	3.0	3
63	Modelling near- and far-field processes in nuclear waste management. Geological Society Special Publication, 2004, 236, 515-528.	1.3	2
64	Modelling of the migration of trace elements along groundwater flowpaths by using a steady state approach application to the site at El Berrocal (Spain). Journal of Contaminant Hydrology, 1997, 26, 35-43.	3.3	1
65	Modelling the radionuclide transfer from bedrock to surface systems at Forsmark site (Sweden). Radioprotection, 2009, 44, 333-338.	1.0	1
66	Authors â€” November 1990. Nuclear Technology, 1990, 92, 153-158.	1.2	0