

# Christophe Poinsot

## List of Publications by Year in descending order

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70  
papers

2,023  
citations

218677

26  
h-index

254184

43  
g-index

79  
all docs

79  
docs citations

79  
times ranked

1746  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental and modelling studies of caesium sorption on illite. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 3217-3227.	3.9	267
2	Assessment of the environmental footprint of nuclear energy systems. Comparison between closed and open fuel cycles. <i>Energy</i> , 2014, 69, 199-211.	8.8	137
3	Thermochemistry of monazite-(La) and dissakisite-(La): implications for monazite and allanite stability in metapelites. <i>Contributions To Mineralogy and Petrology</i> , 2007, 154, 1-14.	3.1	125
4	Long-term Behavior Science: The cornerstone approach for reliably assessing the long-term performance of nuclear waste. <i>Journal of Nuclear Materials</i> , 2012, 420, 182-192.	2.7	94
5	Crustal-scale strain partitioning: footwall deformation below the Alpine Oligo-Miocene detachment of Corsica. <i>Journal of Structural Geology</i> , 1996, 18, 41-59.	2.3	83
6	Thermodynamics of formation of coffinite, $USiO_4$ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6551-6555.	7.1	72
7	Spent fuel radionuclide source-term model for assessing spent fuel performance in geological disposal. Part I: Assessment of the instant release fraction. <i>Journal of Nuclear Materials</i> , 2005, 346, 56-65.	2.7	65
8	Development and Validation of the EXAm Separation Process for Single Am Recycling. <i>Procedia Chemistry</i> , 2012, 7, 367-373.	0.7	64
9	Perspectives on the closed fuel cycle – Implications for high-level waste matrices. <i>Journal of Nuclear Materials</i> , 2007, 362, 383-394.	2.7	53
10	Specific outcomes of the research on the spent fuel long-term evolution in interim dry storage and deep geological disposal. <i>Journal of Nuclear Materials</i> , 2006, 352, 246-253.	2.7	52
11	Improving the nuclear energy sustainability by decreasing its environmental footprint. Guidelines from life cycle assessment simulations. <i>Progress in Nuclear Energy</i> , 2016, 92, 234-241.	2.9	51
12	Recycling the Actinides, The Cornerstone of Any Sustainable Nuclear Fuel Cycles. <i>Procedia Chemistry</i> , 2012, 7, 349-357.	0.7	50
13	Synthesis and characterization of coffinite. <i>Journal of Nuclear Materials</i> , 2009, 393, 449-458.	2.7	46
14	Spent fuel radionuclide source term model for assessing spent fuel performance in geological disposal. Part II: Matrix alteration model and global performance. <i>Journal of Nuclear Materials</i> , 2005, 346, 66-77.	2.7	41
15	Assessment of the Anticipated Environmental Footprint of Future Nuclear Energy Systems. Evidence of the Beneficial Effect of Extensive Recycling. <i>Energies</i> , 2017, 10, 1445.	3.1	39
16	Coffinite, $USiO_4$ , Is Abundant in Nature: So Why Is It So Difficult To Synthesize?. <i>Inorganic Chemistry</i> , 2015, 54, 6687-6696.	4.0	38
17	First experimental determination of the solubility constant of coffinite. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 181, 36-53.	3.9	35
18	How To Explain the Difficulties in the Coffinite Synthesis from the Study of Uranothorite?. <i>Inorganic Chemistry</i> , 2011, 50, 11117-11126.	4.0	33

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19	From Uranothorites to Coffinite: A Solid Solution Route to the Thermodynamic Properties of $\text{USiO}_4$ . <i>Inorganic Chemistry</i> , 2013, 52, 6957-6968.	4.0	33
20	Could spent nuclear fuel be considered as a non-conventional mine of critical raw materials?. <i>Progress in Nuclear Energy</i> , 2017, 94, 222-228.	2.9	32
21	Main Results of the French Program on Partitioning of Minor Actinides, a Significant Improvement Towards Nuclear Waste Reduction. <i>Procedia Chemistry</i> , 2012, 7, 358-366.	0.7	31
22	Energetics of a Uranothorite ( $\text{ThUxSiO}_4$ ) Solid Solution. <i>Chemistry of Materials</i> , 2016, 28, 7117-7124.	6.7	31
23	From thorite to coffinite: A spectroscopic study of $\text{ThUxSiO}_4$ solid solutions. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 118, 302-307.	3.9	29
24	Americium Recovery from Highly Active PUREX Raffinate by Solvent Extraction: The EXAm Process. A Review of 10 Years of R&D. <i>Solvent Extraction and Ion Exchange</i> , 2020, 38, 365-387.	2.0	29
25	Metamorphic veining and mass transfer in a chemically closed system: a case study in Alpine metabauxites (western Vanoise). <i>Journal of Metamorphic Geology</i> , 2011, 29, 275-300.	3.4	28
26	Preparation and characterization of synthetic $\text{Th}_0.5\text{U}_0.5\text{SiO}_4$ uranothorite. <i>Progress in Nuclear Energy</i> , 2012, 57, 155-160.	2.9	27
27	Interactions between Nuclear Fuel and Water at the Fukushima Daiichi Reactors. <i>Elements</i> , 2012, 8, 213-219.	0.5	26
28	Structural transitions and electron transfer in coffinite, $\text{USiO}_4$ , at high pressure. <i>American Mineralogist</i> , 2009, 94, 916-920.	1.9	25
29	Enhanced diffusion under alpha self-irradiation in spent nuclear fuel: Theoretical approaches. <i>Journal of Nuclear Materials</i> , 2005, 346, 48-55.	2.7	23
30	Solubility properties of synthetic and natural meta-torbernite. <i>Journal of Nuclear Materials</i> , 2013, 442, 195-207.	2.7	23
31	Vibrational spectroscopy of synthetic analogues of ankoleite, chernikovite and intermediate solid solution. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 156, 143-150.	3.9	21
32	Multiparametric Study of the Synthesis of $\text{ThSiO}_4$ under Hydrothermal Conditions. <i>Inorganic Chemistry</i> , 2018, 57, 9393-9402.	4.0	19
33	Response of synthetic coffinite to energetic ion beam irradiation. <i>Journal of Nuclear Materials</i> , 2009, 393, 481-486.	2.7	18
34	Purification of uranothorite solid solutions from polyphase systems. <i>Journal of Nuclear Materials</i> , 2013, 441, 73-83.	2.7	17
35	Hydrothermal alteration of a simulated nuclear waste glass: effects of a thermal gradient and of a chemical barrier. <i>European Journal of Mineralogy</i> , 1996, 8, 533-548.	1.3	16
36	Identification of Neoformed Ni-Phyllosilicates Upon Ni Uptake in Montmorillonite: A Transmission Electron Microscopy and Extended X-Ray Absorption Fine Structure Study. <i>Clays and Clay Minerals</i> , 2006, 54, 209-219.	1.3	15

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37	Radionuclides Release From the Spent Fuel Under Disposal Conditions: Re-evaluation of the Instant Release Fraction. Materials Research Society Symposia Proceedings, 2008, 1107, 1.	0.1	14
38	Preparation of CeSiO <sub>4</sub> from aqueous precursors under soft hydrothermal conditions. Dalton Transactions, 2019, 48, 7551-7559.	3.3	14
39	Chemical interaction between a simulated nuclear waste glass and different backfill materials under a thermal gradient. Applied Geochemistry, 1998, 13, 715-734.	3.0	13
40	Europium migration in Argillaceous Rocks : on the use of Micro Laser-Induced Breakdown Spectroscopy (micro LIBS) as a Microanalysis Tool. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	13
41	The Sustainability, a Relevant Approach for Defining the Roadmap for Future Nuclear Fuel Cycles. Procedia Chemistry, 2016, 21, 536-544.	0.7	13
42	Formation of CeSiO <sub>4</sub> from cerium(III) silicate precursors. Dalton Transactions, 2019, 48, 10455-10463.	3.3	13
43	Selective transfer of Li-Al-rich phyllosilicate to metamorphic veins (Western Alps): Laser Induced Breakdown Spectroscopy (LIBS) compositional profiles and microstructural characterization. Journal of Geodynamics, 2016, 101, 51-72.	1.6	12
44	Impact of Carbonate Ions on the Synthesis of ThSiO <sub>4</sub> under Hydrothermal Conditions. Inorganic Chemistry, 2018, 57, 12398-12408.	4.0	11
45	Soft Hydrothermal Synthesis of Hafnon, HfSiO <sub>4</sub> . Crystal Growth and Design, 2020, 20, 1820-1828.	3.0	11
46	The formation of PuSiO <sub>4</sub> under hydrothermal conditions. Dalton Transactions, 2020, 49, 6434-6445.	3.3	11
47	Long term evolution of spent nuclear fuel in long term storage or geological disposal. New findings from the French PRECCI R&D program and implications for the definition of the RN source term in geological repository. Journal of Nuclear Science and Technology, 2002, 39, 473-476.	1.3	10
48	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.	0.1	10
49	Advanced Reprocessing Developments in Europe Status on European Projects ACSEPT and ACTINET-13. Procedia Chemistry, 2012, 7, 166-171.	0.7	10
50	Post-containment performance of geological repository systems: source-term release and radionuclide migration in the near- and far-field environments. , 2010, , 421-493.		8
51	<i>In situ</i> study of the synthesis of thorite (ThSiO <sub>4</sub> ) under environmental representative conditions. Dalton Transactions, 2020, 49, 11512-11521.	3.3	7
52	Quantitative Assessment of the Instant Release Fraction (IRF) for Fission Gases and Volatile Elements as a Function of Burnup and Time under Geological Disposal Conditions. Materials Research Society Symposia Proceedings, 2003, 807, 748.	0.1	6
53	Electrophoretic deposition of siderite thin layers: Influence of electrode potential and deposition time. Thin Solid Films, 2010, 518, 2644-2648.	1.8	6
54	A New Approach to the RN Source Term for Spent Nuclear Fuel under Geological Disposal Conditions. Materials Research Society Symposia Proceedings, 2000, 663, 1.	0.1	5

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55	Thermochemical characterization of Ca <sub>4</sub> La <sub>6</sub> (SiO <sub>4</sub> ) <sub>6</sub> (OH) <sub>2</sub> a synthetic La- and OH-analogous of britholite: implication for monazite and LREE apatites stability. <i>Mineralogia</i> , 2008, 39, 41-52.	0.8	5
56	Study of Long Term Behavior of Intermediate Level Long Lived Waste Packages: An Overview of the R&D Approach and Results. <i>Procedia Chemistry</i> , 2012, 7, 559-566.	0.7	5
57	Formation of plutonium( <sup>iv</sup> ) silicate species in very alkaline reactive media. <i>Dalton Transactions</i> , 2021, 50, 12528-12536.	3.3	5
58	Assessment of the Evolution with Time of the Instant Release Fraction of Spent Nuclear Fuel in Geological Disposal Conditions. <i>Materials Research Society Symposia Proceedings</i> , 2002, 713, 1.	0.1	4
59	Key Scientific Issues Related to the Evolution of Spent Nuclear Fuel in Long Term Dry Storage and Geological Disposal. <i>Materials Research Society Symposia Proceedings</i> , 2003, 807, 271.	0.1	3
60	Mechanisms governing the release of radionuclides from spent nuclear fuel in geological repository: major outcomes of the European Project SFS. <i>Materials Research Society Symposia Proceedings</i> , 2006, 932, 1.	0.1	3
61	Main results of the French program on Partitioning and Transmutation of Minor Actinides. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1475, 57.	0.1	3
62	New Perspectives for the Spent Nuclear Fuel Radionuclides Release Model in a Deep Geological Repository. <i>Materials Research Society Symposia Proceedings</i> , 2006, 985, 1.	0.1	2
63	Overview of the CEA French Research Program on Nuclear Waste. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1107, 1.	0.1	2
64	Consequences of the Anticipated Long-Term Evolution of Spent Nuclear Fuel for the Assessment of the Release Rate of Radionuclides.. <i>Materials Research Society Symposia Proceedings</i> , 2002, 757, II1.8.1.	0.1	1
65	Radionuclides Release Model for Performance Assessment Studies of Spent Nuclear Fuel in Geological Disposal. <i>Materials Research Society Symposia Proceedings</i> , 2004, 824, 115.	0.1	1
66	Overview of radionuclide behaviour in the natural environment. , 2012, , 1-10.		1
67	HLW Conditioning and Long-Term Performance. , 2021, , 564-576.		1
68	Key Scientific Issues Related to the Sustainable Management of the Spent Nuclear Fuel in the Back-end of the Fuel Cycle. , 2008, , .		1
69	ANCRE-A Roadmap on Chemistry for Nuclear Energy. <i>Procedia Chemistry</i> , 2012, 7, 3-12.	0.7	0
70	La chimie du recyclage des mati�res nucl�aires, une expertise et un savoir-faire fran�ais in �gal�s. <i>Revue G�n�rale Nucl�aire</i> , 2017, , 33-36.	0.0	0