Denis Horlait

List of Publications by Year
in descending order

45 papers	1,265 citations	331259 21 h-index	360668 35 g-index
48 all docs	48 docs citations	48 times ranked	1035 citing authors

#	Article	IF	Citations
1	Hadean isotopic fractionation of xenon retained in deep silicates. Nature, 2022, 606, 713-717.	13.7	0
2	Experimental study of the diffusion of Xe and Kr implanted at low concentrations in UO2 and determination of their trapping mechanisms. Journal of Nuclear Materials, 2021, 556, 153174.	1.3	7
3	Experimental measurements of Xe and Kr releases from UO2 and determination of their migration mechanisms â€“ Release rate data. Data in Brief, 2021, 39, 107645.	0.5	0
4	A new thermo-desorption laser-heating setup for studying noble gas diffusion and release from materials at high temperatures. Review of Scientific Instruments, 2021, 92, 124102.	0.6	6
5	On the stoichiometry of zirconium carbide. Scientific Reports, 2020, 10, 6347.	1.6	28
6	Experimental determination of intragranular helium diffusion rates in boron carbide (B4C). Journal of Nuclear Materials, 2019, 527, 151834.	1.3	8
7	Uranium carbide oxidation from 873 K to 1173 K. Corrosion Science, 2019, 151, 44-56.	3.0	9
8	Zirconium carbide oxidation: Kinetics and oxygen diffusion through the intermediate layer. Journal of the American Ceramic Society, 2018, 101, 2638-2652.	1.9	40
9	Durability of hot uniaxially pressed Synroc derivative wasteform for EURO-GANEX wastes. Journal of Nuclear Materials, 2018, 509, 43-53.	1.3	6
10	Synthesis and physical properties of (Zr_{1â^’x},Ti_x)₃AlC₂<scp>MAX</scp> phases. Journal of the American Ceramic Society, 2017, 100, 3393-3401.	1.9	63
11	Experimental synthesis and density functional theory investigation of radiation tolerance of Zr₃(Al_{1â€“}<scp>_xS</scp>_x)C₂<scp>MAX</scp> phases. Journal of the American Ceramic Society, 2017, 100, 1377-1387.	1.9	45
12	Zirconium Carbide Oxidation: Maltese Cross Formation and Interface Characterization. Oxidation of Metals, 2017, 88, 509-519.	1.0	21
13	Modelling solid solutions with cluster expansion, special quasirandom structures, and thermodynamic approaches. Applied Physics Reviews, 2017, 4, 041301.	5.5	20
14	Oxidation of UC: An in situ high temperature environmental scanning electron microscopy study. Journal of Nuclear Materials, 2017, 494, 127-137.	1.3	18
15	Experimental and DFT investigation of (Cr,Ti)₃AlC₂ MAX phases stability. Materials Research Letters, 2017, 5, 144-157.	4.1	27
16	Î± Self-irradiation Effects on Structural Properties of (U,Am)O2Â±Î´Materials. EPJ Web of Conferences, 2016, 115, 03005.	0.1	1
17	Thermal Properties of Rareâ€Earth Monosilicates for <scp>EBC</scp> on Siâ€Based Ceramic Composites. Journal of the American Ceramic Society, 2016, 99, 589-596.	1.9	125
18	Wasteforms for waste from advanced reprocessing. MRS Advances, 2016, 1, 4255-4260.	0.5	2

#	Article	IF	Citations
19	Synthesis and DFT investigation of new bismuth-containing MAX phases. Scientific Reports, 2016, 6, 18829.	1.6	97
20	Development toward a double focusing isotopic separator for noble gas isotope enrichment. Journal of Mass Spectrometry, 2016, 51, 908-913.	0.7	5
21	Dilatometric study of a co-converted (U,Am)O2 powder. Journal of the European Ceramic Society, 2016, 36, 1775-1782.	2.8	7
22	Synthesis and Oxidation Testing of <scp>MAX</scp> Phase Composites in the Crâ€“Tiâ€“Alâ€“C Quaternary System. Journal of the American Ceramic Society, 2016, 99, 682-690.	1.9	58
23	Attempts to synthesise quaternary MAX phases (Zr,M)₂AlC and Zr₂(Al,A)C as a way to approach Zr₂AlC. Materials Research Letters, 2016, 4, 137-144.	4.1	71
24	Peculiar Behavior of (U,Am)O_{2â^Î´} Compounds for High Americium Contents Evidenced by XRD, XAS, and Raman Spectroscopy. Inorganic Chemistry, 2015, 54, 9749-9760.	1.9	30
25	Fabrication of uraniumâ€“americium mixed oxide pellet from microsphere precursors: Application of CRMP process. Journal of Nuclear Materials, 2014, 453, 214-219.	1.3	21
26	Environmental SEM monitoring of Ce_{1â^'x}Ln_xO_{2â^'x/2}mixed-oxide microstructural evolution during dissolution. Journal of Materials Chemistry A, 2014, 2, 5193-5203.	5.2	52
27	New Insight into Self-Irradiation Effects on Local and Long-Range Structure of Uraniumâ€“Americium Mixed Oxides (through XAS and XRD). Inorganic Chemistry, 2014, 53, 9531-9540.	1.9	16
28	Nanostructured gadolinium-doped ceria microsphere synthesis from ion exchange resin: Multi-scale in-situ studies of solid solution formation. Journal of Solid State Chemistry, 2014, 218, 155-163.	1.4	20
29	Americium-based oxides: Dense pellet fabrication from co-converted oxalates. Journal of Nuclear Materials, 2014, 444, 181-185.	1.3	23
30	Self-irradiation and oxidation effects on americium sesquioxide and Raman spectroscopy studies of americium oxides. Journal of Solid State Chemistry, 2014, 217, 159-168.	1.4	11
31	Fabrication and characterization of U1â^'Am O2Â± compounds with high americium contents (x= 0.3, 0.4) Tj ETQq1 1 0.784314 rgBT /C	1.3	19
32	XRD Monitoring of Î± Self-Irradiation in Uraniumâ€“Americium Mixed Oxides. Inorganic Chemistry, 2013, 52, 14196-14204.	1.9	28
33	Dilatometric study of U1â^'xAmxO2Â±Î´ and U1â^'xCexO2Â±Î´ reactive sintering. Journal of Nuclear Materials, 2013, 441, 40-46.	1.3	18
34	Recent progress on minor-actinide-bearing oxide fuel fabrication at CEA Marcoule. Journal of Nuclear Materials, 2013, 438, 99-107.	1.3	30
35	Application of the UMACS process to highly dense U1â^'xAmxO2Â±Î´ MABB fuel fabrication for the DIAMINO irradiation. Journal of Nuclear Materials, 2013, 432, 305-312.	1.3	36
36	Dilatometric Study of <scp><scp>U</scp></scp>_{1â^'x}<scp><scp>Am</scp></scp>_x<scp><scp>O</scp></scp><sub> Sintering: Determination of Activation Energy. Journal of the American Ceramic Society, 2013, 96, 3410-3416.	1.9	9

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37	Kinetics of Structural and Microstructural Changes at the Solid/Solution Interface during Dissolution of Cerium(IV)â€“Neodymium(III) Oxides. Journal of Physical Chemistry C, 2012, 116, 12027-12037.	1.5	16
38	Catalytic dissolution of ceria under mild conditions. Journal of Materials Chemistry, 2012, 22, 14734.	6.7	29
39	U1-xAmxO2Â±Î´ MABB Fabrication in the Frame of the DIAMINO Irradiation Experiment. Procedia Chemistry, 2012, 7, 485-492.	0.7	10
40	UMACS Process and its Application to MABB Fuel Fabrication. Procedia Chemistry, 2012, 7, 499-504.	0.7	3
41	Synthesis and characterization of Th1â^'xLnxO2â^'x/2 mixed-oxides. Materials Research Bulletin, 2012, 47, 4017-4025.	2.7	51
42	Dissolution of Cerium(IV)â€“Lanthanide(III) Oxides: Comparative Effect of Chemical Composition, Temperature, and Acidity. Inorganic Chemistry, 2012, 51, 3868-3878.	1.9	44
43	Multiparametric study of Th1â^'xLnxO2â^'x/2 mixed oxides dissolution in nitric acid media. Journal of Nuclear Materials, 2012, 429, 237-244.	1.3	22
44	Stability and Structural Evolution of Ce^{IV}_{1â€“x}Ln^{III}_xO_{2â€“x/2} Solid Solutions: A Coupled Î¼-Raman/XRD Approach. Inorganic Chemistry, 2011, 50, 7150-7161.	1.9	109
45	Molecular simulation of zinc oxide nanostructures confined in carbon nanotubes. Molecular Simulation, 2010, 36, 1045-1058.	0.9	4