

# Denis Horlait

## List of Publications by Year in descending order

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45  
papers

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331259  
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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal Properties of Rare-Earth Monosilicates for EBC on Si-Based Ceramic Composites. Journal of the American Ceramic Society, 2016, 99, 589-596.	1.9	125
2	Stability and Structural Evolution of $\text{Ce}^{\text{IV}}\text{Ln}^{\text{III}}\text{O}_{2-x/2}$ Solid Solutions: A Coupled $^{13}\text{C}$ -Raman/XRD Approach. Inorganic Chemistry, 2011, 50, 7150-7161.	1.9	109
3	Synthesis and DFT investigation of new bismuth-containing MAX phases. Scientific Reports, 2016, 6, 18829.	1.6	97
4	Attempts to synthesise quaternary MAX phases $(\text{Zr},\text{M})_2\text{AlC}$ and $\text{Zr}_2(\text{Al},\text{A})\text{C}$ as a way to approach $\text{Zr}_2\text{AlC}$ . Materials Research Letters, 2016, 4, 137-144.	4.1	71
5	Synthesis and physical properties of $(\text{Zr}_{1-x}\text{Ti}_x)_3\text{AlC}_2$ MAX phases. Journal of the American Ceramic Society, 2017, 100, 3393-3401.	1.9	63
6	Synthesis and Oxidation Testing of MAX Phase Composites in the Cr-Ti-Al Quaternary System. Journal of the American Ceramic Society, 2016, 99, 682-690.	1.9	58
7	Environmental SEM monitoring of $\text{Ce}_{1-x}\text{Ln}_x\text{O}_{2-x/2}$ mixed-oxide microstructural evolution during dissolution. Journal of Materials Chemistry A, 2014, 2, 5193-5203.	5.2	52
8	Synthesis and characterization of $\text{Th}_{1-x}\text{Ln}_x\text{O}_{2-x/2}$ mixed-oxides. Materials Research Bulletin, 2012, 47, 4017-4025.	2.7	51
9	Experimental synthesis and density functional theory investigation of radiation tolerance of $\text{Zr}_3(\text{Al}_{1-x}\text{Sc}_x)_2\text{C}_{2-x}$ MAX phases. Journal of the American Ceramic Society, 2017, 100, 1377-1387.	1.9	45
10	Dissolution of Cerium(IV)-Lanthanide(III) Oxides: Comparative Effect of Chemical Composition, Temperature, and Acidity. Inorganic Chemistry, 2012, 51, 3868-3878.	1.9	44
11	Zirconium carbide oxidation: Kinetics and oxygen diffusion through the intermediate layer. Journal of the American Ceramic Society, 2018, 101, 2638-2652.	1.9	40
12	Application of the UMACS process to highly dense $\text{U}_{1-x}\text{Am}_x\text{O}_{2\pm\delta}$ MABB fuel fabrication for the DIAMINO irradiation. Journal of Nuclear Materials, 2013, 432, 305-312.	1.3	36
13	Recent progress on minor-actinide-bearing oxide fuel fabrication at CEA Marcoule. Journal of Nuclear Materials, 2013, 438, 99-107.	1.3	30
14	Peculiar Behavior of $(\text{U},\text{Am})\text{O}_{2\pm\delta}$ Compounds for High Americium Contents Evidenced by XRD, XAS, and Raman Spectroscopy. Inorganic Chemistry, 2015, 54, 9749-9760.	1.9	30
15	Catalytic dissolution of ceria under mild conditions. Journal of Materials Chemistry, 2012, 22, 14734.	6.7	29
16	XRD Monitoring of $\pm$ Self-Irradiation in Uranium-Amercium Mixed Oxides. Inorganic Chemistry, 2013, 52, 14196-14204.	1.9	28
17	On the stoichiometry of zirconium carbide. Scientific Reports, 2020, 10, 6347.	1.6	28
18	Experimental and DFT investigation of $(\text{Cr},\text{Ti})_3\text{AlC}_2$ MAX phases stability. Materials Research Letters, 2017, 5, 144-157.	4.1	27

#	ARTICLE	IF	CITATIONS
19	Americium-based oxides: Dense pellet fabrication from co-converted oxalates. Journal of Nuclear Materials, 2014, 444, 181-185.	1.3	23
20	Multiparametric study of $\text{Th}_{1-x}\text{Ln}_x\text{O}_{2-x/2}$ mixed oxides dissolution in nitric acid media. Journal of Nuclear Materials, 2012, 429, 237-244.	1.3	22
21	Fabrication of uranium-amerium mixed oxide pellet from microsphere precursors: Application of CRMP process. Journal of Nuclear Materials, 2014, 453, 214-219.	1.3	21
22	Zirconium Carbide Oxidation: Maltese Cross Formation and Interface Characterization. Oxidation of Metals, 2017, 88, 509-519.	1.0	21
23	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
24	Modelling solid solutions with cluster expansion, special quasirandom structures, and thermodynamic approaches. Applied Physics Reviews, 2017, 4, 041301.	5.5	20
25	Fabrication and characterization of $\text{U}_{1-x}\text{Am}_x\text{O}_{2\pm\delta}$ compounds with high americium contents ( $x=0.3, 0.4$ ) $T_{\text{ETQ}} = 1.0784314 \text{ rgBT/C}$	1.3	19
26	Dilatometric study of $\text{U}_{1-x}\text{Am}_x\text{O}_{2\pm\delta}$ and $\text{U}_{1-x}\text{CexO}_{2\pm\delta}$ reactive sintering. Journal of Nuclear Materials, 2013, 441, 40-46.	1.3	18
27	Oxidation of UC: An in situ high temperature environmental scanning electron microscopy study. Journal of Nuclear Materials, 2017, 494, 127-137.	1.3	18
28	Kinetics of Structural and Microstructural Changes at the Solid/Solution Interface during Dissolution of Cerium(IV)-Neodymium(III) Oxides. Journal of Physical Chemistry C, 2012, 116, 12027-12037.	1.5	16
29	New Insight into Self-Irradiation Effects on Local and Long-Range Structure of Uranium-Amerium Mixed Oxides (through XAS and XRD). Inorganic Chemistry, 2014, 53, 9531-9540.	1.9	16
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	$\text{U}_{1-x}\text{Am}_x\text{O}_{2\pm\delta}$ MABB Fabrication in the Frame of the DIAMINO Irradiation Experiment. Procedia Chemistry, 2012, 7, 485-492.	0.7	10
32	Dilatometric Study of $\text{U}_{1-x}\text{Am}_x\text{O}_{2\pm\delta}$ Sintering: Determination of Activation Energy. Journal of the American Ceramic Society, 2013, 96, 3410-3416.	1.9	9
33	Uranium carbide oxidation from 873 K to 1173 K. Corrosion Science, 2019, 151, 44-56.	3.0	9
34	Experimental determination of intragranular helium diffusion rates in boron carbide ( $\text{B}_4\text{C}$ ). Journal of Nuclear Materials, 2019, 527, 151834.	1.3	8
35	Dilatometric study of a co-converted (U,Am) $\text{O}_2$ powder. Journal of the European Ceramic Society, 2016, 36, 1775-1782.	2.8	7
36	Experimental study of the diffusion of Xe and Kr implanted at low concentrations in $\text{UO}_2$ and determination of their trapping mechanisms. Journal of Nuclear Materials, 2021, 556, 153174.	1.3	7

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37	Durability of hot uniaxially pressed Synroc derivative wasteform for EURO-GANEX wastes. Journal of Nuclear Materials, 2018, 509, 43-53.	1.3	6
38	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
39	Development toward a double focusing isotopic separator for noble gas isotope enrichment. Journal of Mass Spectrometry, 2016, 51, 908-913.	0.7	5
40	Molecular simulation of zinc oxide nanostructures confined in carbon nanotubes. Molecular Simulation, 2010, 36, 1045-1058.	0.9	4
41	UMACS Process and its Application to MABB Fuel Fabrication. Procedia Chemistry, 2012, 7, 499-504.	0.7	3
42	Wasteforms for waste from advanced reprocessing. MRS Advances, 2016, 1, 4255-4260.	0.5	2
43	± Self-irradiation Effects on Structural Properties of (U,Am)O <sub>2</sub> ± Materials. EPJ Web of Conferences, 2016, 115, 03005.	0.1	1
44	Experimental measurements of Xe and Kr releases from UO <sub>2</sub> and determination of their migration mechanisms “ Release rate data. Data in Brief, 2021, 39, 107645.	0.5	0
45	Hadean isotopic fractionation of xenon retained in deep silicates. Nature, 2022, 606, 713-717.	13.7	0