Kinga A Unocic

List of Publications by Year
in descending order

46 papers	950 citations	471509 17 h-index	454955 30 g-index
50 all docs	50 docs citations	50 times ranked	1142 citing authors

#	Article	IF	Citations
1	Thermal effects on microstructural heterogeneity of Inconel 718 materials fabricated by electron beam melting. Journal of Materials Research, 2014, 29, 1920-1930.	2.6	170
2	Development of low-Cr ODS FeCrAl alloys for accident-tolerant fuel cladding. Journal of Nuclear Materials, 2018, 501, 59-71.	2.7	87
3	Effect of Al and Cr Content on Air and Steam Oxidation of FeCrAl Alloys and Commercial APMT Alloy. Oxidation of Metals, 2017, 87, 431-441.	2.1	74
4	Toward net-zero sustainable aviation fuel with wet wasteâ€“derived volatile fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	63
5	Oxidation behavior of co-doped NiCrAl alloys in dry and wet air. Surface and Coatings Technology, 2013, 237, 8-15.	4.8	46
6	Advanced TEM characterization of oxide nanoparticles in ODS Feâ€“12Crâ€“5Al alloys. Journal of Materials Science, 2016, 51, 9190-9206.	3.7	45
7	Structureâ€“Property Relationships of Inorganically Surface-Modified Zeolite Molecular Sieves for Nanocomposite Membrane Fabrication. Journal of Physical Chemistry C, 2012, 116, 9636-9645.	3.1	41
8	Grain boundary character dependence of radiation-induced segregation in a model Niâ€“Cr alloy. Journal of Materials Research, 2015, 30, 1290-1299.	2.6	33
9	Probing battery chemistry with liquid cell electron energy loss spectroscopy. Chemical Communications, 2015, 51, 16377-16380.	4.1	25
10	Isolated Metal Sites in Cuâ€“Znâ€“Y/Beta for Direct and Selective Butene-Rich C₃₊ Olefin Formation from Ethanol. ACS Catalysis, 2021, 11, 9885-9897.	11.2	24
11	Material compatibility with isothermal Pbâ€“Li. Materials at High Temperatures, 2012, 29, 129-135.	1.0	23
12	A hybrid pathway to biojet fuel <i>via</i> 2,3-butanediol. Sustainable Energy and Fuels, 2020, 4, 3904-3914.	4.9	22
13	Single-step aging treatment for a precipitation-strengthened Ni-based alloy and its influence on high-temperature mechanical behavior. Scripta Materialia, 2019, 162, 416-420.	5.2	21
14	The effect of Zr on precipitation in oxide dispersion strengthened FeCrAl alloys. Journal of Nuclear Materials, 2020, 533, 152105.	2.7	21
15	Compatibility of an FeCrAl alloy with flowing Pb-Li in a thermal convection loop. Journal of Nuclear Materials, 2017, 492, 41-51.	2.7	20
16	Ionic segregation on grain boundaries in thermally grown alumina scales. Materials at High Temperatures, 2012, 29, 257-263.	1.0	19
17	Compatibility of FeCrAlMo with flowing PbLi at 500Â°-650â€ Â°C. Journal of Nuclear Materials, 2020, 528, 151847.	2.7	19
18	STEM and APT characterization of scale formation on a La,Hf,Ti-doped NiCrAl model alloy. Micron, 2018, 109, 41-52.	2.2	18

#	Article	IF	Citations
19	NiAl Oxidation Reaction Processes Studied In Situ Using MEMS-Based Closed-Cell Gas Reaction Transmission Electron Microscopy. Oxidation of Metals, 2017, 88, 495-508.	2.1	17
20	Deactivation by Potassium Accumulation on a Pt/TiO₂ Bifunctional Catalyst for Biomass Catalytic Fast Pyrolysis. ACS Catalysis, 2022, 12, 465-480.	11.2	15
21	Evaluation of Carbon Partitioning in New Generation of Quench and Partitioning (Q&P) Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4809-4823.	2.2	14
22	Single-phase catalysis for reductive etherification of diesel bioblendstocks. Green Chemistry, 2020, 22, 4463-4472.	9.0	14
23	Grain Boundary Chemistry and Transport Through Alumina Scales on NiAl Alloys. Oxidation of Metals, 2017, 88, 469-479.	2.1	13
24	Selective Butene Formation in Direct Ethanol-to-C₃₊-Olefin Valorization over Znâ€"Y/Beta and Single-Atom Alloy Composite Catalysts Using In Situ-Generated Hydrogen. ACS Catalysis, 2021, 11, 7193-7209.	11.2	13
25	Evaluation of Pbâ€"17Li compatibility of ODS Fe-12Cr-5Al alloys. Journal of Nuclear Materials, 2016, 479, 357-364.	2.7	12
26	Enhanced Catalyst Durability for Bio-Based Adipic Acid Production by Atomic Layer Deposition. Joule, 2019, 3, 2219-2240.	24.0	12
27	Introducing and Controlling Water Vapor in Closed-Cell <i>In Situ</i> Electron Microscopy Gas Reactions. Microscopy and Microanalysis, 2020, 26, 229-239.	0.4	12
28	The Effect of Environment on Thermal Barrier Coating Lifetime. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	9
29	Evolution of the structure and chemical composition of the interface between multi-component silicate glasses and yttria-stabilized zirconia after 40,000â€‰h exposure in air at 800â€‰Â°C. Journal of the European Ceramic Society, 2022, 42, 1576-1584.	5.7	6
30	Ethanol Conversion to C₄₊ Olefins over Bimetallic Copper- And Lanthanum-Containing Beta Zeolite Catalysts. ACS Sustainable Chemistry and Engineering, 2022, 10, 5702-5707.	6.7	6
31	Creep and Oxidation Behavior of Modified CF8C-Plus with W, Cu, Ni, and Cr. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 1641-1653.	2.2	4
32	<i>In situ</i> S/TEM Reactions of Ag/ZrO₂/SBA-16 Catalysts for Single-Step Conversion of Ethanol to Butadiene. Microscopy and Microanalysis, 2019, 25, 1460-1461.	0.4	4
33	Analytical modeling of the evolution of the nonlinearity parameter of sensitized stainless steel. Journal of Applied Physics, 2021, 130, .	2.5	4
34	Direct 2,3-Butanediol Conversion to Butene-Rich C₃₊ Olefins over Copper-Modified 2D Pillared MFI: Consequence of Reduced Diffusion Length. ACS Sustainable Chemistry and Engineering, 2022, 10, 1664-1674.	6.7	4
35	Microstructural Evaluation of Welded Nickel-Based Superalloy Inconel 740H After Creep Testing. Jom, 2020, 72, 1811-1821.	1.9	3
36	Water Vapor in Closed-Cell In Situ Gas Reactions: Initial Experiments. Microscopy and Microanalysis, 2017, 23, 940-941.	0.4	2

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37	In situ transmission electron microscopy deformation and mechanical responses of additively manufactured Ni-based superalloy. Scripta Materialia, 2020, 186, 57-62.	5.2	2
38	Supercritical Methanol Solvolysis and Catalysis for the Conversion of Delignified Woody Biomass into Light Alcohol Gasoline Bioblendstock. Advanced Sustainable Systems, 2022, 6, .	5.3	2
39	Novel Method for Precision Controlled Heating of TEM Thin Sections to Study Reaction Processes. Microscopy and Microanalysis, 2014, 20, 1628-1629.	0.4	1
40	In Situ S/TEM Reduction Reaction of Ni-Mo2C Catalyst for Biomass Conversion. Microscopy and Microanalysis, 2018, 24, 322-323.	0.4	1
41	Model â€œAlloyâ€•Specimens for MEMS-Based Closed-Cell Gas-Reactions. Microscopy and Microanalysis, 2017, 23, 908-909.	0.4	0
42	In situ S/TEM Reduction Reaction of Calcined Cu/BEA-zeolite Catalyst. Microscopy and Microanalysis, 2017, 23, 944-945.	0.4	0
43	In situ Nanoscale Imaging and Spectroscopy of Energy Storage Materials. Microscopy and Microanalysis, 2017, 23, 1964-1965.	0.4	0
44	Influence of Water Vapor on NiAl Oxidation Using in situ STEM. Microscopy and Microanalysis, 2019, 25, 1462-1463.	0.4	0
45	Performing In Situ Closed-Cell Gas Reactions in the Transmission Electron Microscope. Journal of Visualized Experiments, 2021, , .	0.3	0
46	Practical Aspects of Performing Quantitive EELS Measurements of Gas Compositions in Closed-Cell Gas Reaction S/TEM. Microscopy and Microanalysis, 2021, 27, 796-798.	0.4	0