

# Mukesh Bachhav

## List of Publications by Year in descending order

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39  
papers

814  
citations

687363

13  
h-index

501196

28  
g-index

40  
all docs

40  
docs citations

40  
times ranked

897  
citing authors

#	ARTICLE	IF	CITATIONS
1	$\text{Fe}_2\text{O}_3$ precipitation in neutron-irradiated Fe-Cr alloys. Scripta Materialia, 2014, 74, 48-51.	5.2	149
2	Microstructural changes in a neutron-irradiated Fe-6 at.%Cr alloy. Journal of Nuclear Materials, 2014, 453, 334-339.	2.7	77
3	Investigation of O-18 enriched hematite ( $\text{Fe}_2\text{O}_3$ ) by laser assisted atom probe tomography. International Journal of Mass Spectrometry, 2013, 335, 57-60.	1.5	67
4	Enhanced nonvolatile resistive switching in dilutely cobalt doped TiO <sub>2</sub> . Applied Physics Letters, 2009, 95, .	3.3	63
5	Investigation of wüstite ( $\text{Fe}_1-x\text{O}$ ) by femtosecond laser assisted atom probe tomography. Ultramicroscopy, 2011, 111, 584-588.	1.9	59
6	On $\text{Fe}_2\text{O}_3$ precipitate composition in thermally annealed and neutron-irradiated Fe-9-18Cr alloys. Journal of Nuclear Materials, 2018, 500, 192-198.	2.7	56
7	On the current role of atom probe tomography in materials characterization and materials science. Current Opinion in Solid State and Materials Science, 2013, 17, 217-223.	11.5	52
8	Microstructural changes in a neutron-irradiated Fe-15 at.%Cr alloy. Journal of Nuclear Materials, 2014, 454, 381-386.	2.7	51
9	Microstructural characterization of as-fabricated and irradiated U-Mo fuel using SEM/EBSD. Journal of Nuclear Materials, 2018, 509, 1-8.	2.7	34
10	Irradiation-induced Nb redistribution of ZrNb alloy: An APT study. Journal of Nuclear Materials, 2019, 516, 100-110.	2.7	30
11	Microstructural changes and their effect on hardening in neutron irradiated Fe-Cr alloys. Journal of Nuclear Materials, 2019, 519, 274-286.	2.7	25
12	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V <sub>2</sub> O <sub>5</sub> . Nano Energy, 2018, 53, 449-457.	16.0	21
13	Understanding spinodal and binodal phase transformations in U-50Zr. Materialia, 2021, 16, 101092.	2.7	14
14	A novel approach to determine the local burnup in irradiated fuels using Atom Probe Tomography (APT). Journal of Nuclear Materials, 2020, 528, 151853.	2.7	13
15	STEM-EDS/EELS and APT characterization of ZrN coatings on UMo fuel kernels. Journal of Nuclear Materials, 2018, 511, 174-182.	2.7	12
16	Interpreting the Presence of an Additional Oxide Layer in Analysis of Metal Oxides-Metal Interfaces in Atom Probe Tomography. Journal of Physical Chemistry C, 2019, 123, 1313-1319.	3.1	11
17	A transmission electron microscopy study of EBR-II neutron-irradiated austenitic stainless steel 304 and nickel-base alloy X-750. Journal of Nuclear Materials, 2020, 528, 151851.	2.7	11
18	Compositionally graded specimen made by laser additive manufacturing as a high-throughput method to study radiation damages and irradiation-assisted stress corrosion cracking. Journal of Nuclear Materials, 2022, 560, 153493.	2.7	9

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19	Effect of proton pre-irradiation on corrosion of Zr-0.5Nb model alloys with different Nb distributions. Corrosion Science, 2020, 173, 108790.	6.6	8
20	Emulation of neutron damage with proton irradiation and its effects on microstructure and microchemistry of Zircaloy-4. Journal of Nuclear Materials, 2021, 557, 153281.	2.7	8
21	Atomic Scale Investigation of Orthopyroxene and Olivine Grain Boundaries by Atom Probe Tomography. Microscopy and Microanalysis, 2015, 21, 1315-1316.	0.4	5
22	Microstructure and Chemistry of Electrodeposited Mg Films. Journal of the Electrochemical Society, 2016, 163, D645-D650.	2.9	5
23	Microstructure and fission products in the UCO kernel of an AGR-1 TRISO fuel particle after post irradiation safety testing. Journal of Nuclear Materials, 2020, 528, 151884.	2.7	5
24	Influence of field conditions on quantitative analysis of single crystal thorium dioxide by atom probe tomography. Ultramicroscopy, 2021, 220, 113167.	1.9	5
25	Microstructural Changes and Chemical Analysis of Fission Products in Irradiated Uranium-7 wt.% Molybdenum Metallic Fuel Using Atom Probe Tomography. Applied Sciences (Switzerland), 2021, 11, 6905.	2.5	5
26	Correlation between thickness dependent nanoscale structural chemistry and superconducting properties of ultrathin epitaxial NbN films. Materials Chemistry and Physics, 2022, 282, 125962.	4.0	5
27	Nanoscale redistribution of alloying elements in high-burnup AXIOM-2 (X2 <sup>Â</sup> ) and their effects on in-reactor corrosion. Corrosion Science, 2021, 190, 109652.	6.6	4
28	Fundamental Understanding of Nb Effect on Corrosion Mechanisms of Irradiated Zr-Nb Alloys. , 2021, , 669-695.		3
29	Chemical and elemental mapping of spent nuclear fuel sections by soft X-ray spectromicroscopy. Journal of Synchrotron Radiation, 2022, 29, 67-79.	2.4	3
30	Using Atom Probe Tomography as a Forensic Tool to Determine Burnup from Nuclear Fuels. Microscopy and Microanalysis, 2019, 25, 1554-1555.	0.4	1
31	Atom Probe Tomography for Burnup and Fission Product Analysis for Nuclear Fuels. Microscopy and Microanalysis, 2020, 26, 3086-3088.	0.4	1
32	Microscopic Characterization of Electrodeposited Mg Layers for Battery Application. Microscopy and Microanalysis, 2015, 21, 335-336.	0.4	0
33	Clustering and Radiation Induced Segregation in Neutron Irradiated Fe-(3-18)Cr Alloys. Microscopy and Microanalysis, 2015, 21, 581-582.	0.4	0
34	On Growth and Chemistry of Electrodeposited Mg Layers with Electrolytes Having Varying Cl Content for Battery Application. Microscopy and Microanalysis, 2016, 22, 1302-1303.	0.4	0
35	Field Evaporation Behavior of Metal Oxide/Metal Interfaces. Microscopy and Microanalysis, 2016, 22, 678-679.	0.4	0
36	Challenges and Opportunities on Elucidating Irradiated Fuels with Atom Probe Tomography. Microscopy and Microanalysis, 2018, 24, 2206-2207.	0.4	0

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37	Isotopic Analysis of Irradiated Ceramic Fuel for Burnup and Microchemical Assessment Using Atom Probe Tomography.. Microscopy and Microanalysis, 2021, 27, 416-417.	0.4	0
38	Radiation-induced mixing and demixing behavior in metallic multilayers exhibiting limited solid miscibility. Microscopy and Microanalysis, 2021, 27, 2914-2915.	0.4	0
39	Application of Atom Probe Tomography as a Method to Investigate Localized Thermal Transport in Actinide-Bearing Oxides. Microscopy and Microanalysis, 2021, 27, 3084-3085.	0.4	0