

Antonios Vamvakeros

List of Publications by Year in descending order

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29
papers

1,082
citations

394421

19
h-index

477307

29
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docs citations

32
times ranked

1207
citing authors

#	ARTICLE	IF	CITATIONS
1	Emerging chemical heterogeneities in a commercial 18650 NCA Li-ion battery during early cycling revealed by synchrotron X-ray diffraction tomography. <i>Journal of Power Sources</i> , 2022, 539, 231589.	7.8	10
2	Real-time tomographic diffraction imaging of catalytic membrane reactors for the oxidative coupling of methane. <i>Catalysis Today</i> , 2021, 364, 242-255.	4.4	19
3	Effect of thermal treatment on the stability of Na ⁺ Mn ²⁺ W/SiO ₂ catalyst for the oxidative coupling of methane. <i>Faraday Discussions</i> , 2021, 229, 176-196.	3.2	28
4	Multi-Scale Studies of 3D Printed Mn ²⁺ Na ⁺ W/SiO ₂ Catalyst for Oxidative Coupling of Methane. <i>Catalysts</i> , 2021, 11, 290.	3.5	7
5	A deep convolutional neural network for real-time full profile analysis of big powder diffraction data. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	31
6	Imaging Heterogeneous Electrocatalyst Stability and Decoupling Degradation Mechanisms in Operating Hydrogen Fuel Cells. <i>ACS Energy Letters</i> , 2021, 6, 2742-2749.	17.4	26
7	Cycling Rate-Induced Spatially-Resolved Heterogeneities in Commercial Cylindrical Li-ion Batteries. <i>Small Methods</i> , 2021, 5, e2100512.	8.6	12
8	Multi-length scale 5D diffraction imaging of Ni ²⁺ Pd/CeO ₂ -ZrO ₂ /Al ₂ O ₃ catalyst during partial oxidation of methane. <i>Journal of Materials Chemistry A</i> , 2021, 9, 11331-11346.	10.3	12
9	<i>In situ</i> X-ray diffraction computed tomography studies examining the thermal and chemical stabilities of working Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} membranes during oxidative coupling of methane. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 18964-18975.	2.8	16
10	The Detection of Monoclinic Zirconia and Non-Uniform 3D Crystallographic Strain in a Re-Oxidized Ni-YSZ Solid Oxide Fuel Cell Anode. <i>Crystals</i> , 2020, 10, 941.	2.2	4
11	ID15A at the ESRF - a beamline for high speed <i>operando</i> X-ray diffraction, diffraction tomography and total scattering. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 515-528.	2.4	85
12	Exploring cycling induced crystallographic change in NMC with X-ray diffraction computed tomography. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 17814-17823.	2.8	28
13	Multiscale investigation of adsorption properties of novel 3D printed UTSA-16 structures. <i>Chemical Engineering Journal</i> , 2020, 402, 126166.	12.7	55
14	Spatial quantification of dynamic inter and intra particle crystallographic heterogeneities within lithium ion electrodes. <i>Nature Communications</i> , 2020, 11, 631.	12.8	73
15	Real-time multi-length scale chemical tomography of fixed bed reactors during the oxidative coupling of methane reaction. <i>Journal of Catalysis</i> , 2020, 386, 39-52.	6.2	35
16	DLSR: a solution to the parallax artefact in X-ray diffraction computed tomography data. <i>Journal of Applied Crystallography</i> , 2020, 53, 1531-1541.	4.5	14
17	Sustainable iron-based oxygen carriers for hydrogen production - Real-time <i>operando</i> investigation. <i>International Journal of Greenhouse Gas Control</i> , 2019, 88, 393-402.	4.6	7
18	X-ray transparent proton-exchange membrane fuel cell design for in situ wide and small angle scattering tomography. <i>Journal of Power Sources</i> , 2019, 437, 226906.	7.8	35

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19	3D printed Ni/Al ₂ O ₃ based catalysts for CO ₂ methanation - a comparative and operando XRD-CT study. <i>Journal of CO₂ Utilization</i> , 2019, 33, 478-487.	6.8	62
20	Spatially Resolving Lithiation in Silicon-Graphite Composite Electrodes via in Situ High-Energy X-ray Diffraction Computed Tomography. <i>Nano Letters</i> , 2019, 19, 3811-3820.	9.1	73
21	Design of next-generation ceramic fuel cells and real-time characterization with synchrotron X-ray diffraction computed tomography. <i>Nature Communications</i> , 2019, 10, 1497.	12.8	56
22	Operando and Postreaction Diffraction Imaging of the La-Sr/CaO Catalyst in the Oxidative Coupling of Methane Reaction. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1751-1760.	3.1	28
23	5D operando-tomographic diffraction imaging of a catalyst bed. <i>Nature Communications</i> , 2018, 9, 4751.	12.8	76
24	X-ray physico-chemical imaging during activation of cobalt-based Fischer-Tropsch synthesis catalysts. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170057.	3.4	17
25	Real-Time Scattering-Contrast Imaging of a Supported Cobalt-Based Catalyst Body during Activation and Fischer-Tropsch Synthesis Revealing Spatial Dependence of Particle Size and Phase on Catalytic Properties. <i>ACS Catalysis</i> , 2017, 7, 2284-2293.	11.2	54
26	Chemical imaging of Fischer-Tropsch catalysts under operating conditions. <i>Science Advances</i> , 2017, 3, e1602838.	10.3	76
27	Interlaced X-ray diffraction computed tomography. <i>Journal of Applied Crystallography</i> , 2016, 49, 485-496.	4.5	40
28	Removing multiple outliers and single-crystal artefacts from X-ray diffraction computed tomography data. <i>Journal of Applied Crystallography</i> , 2015, 48, 1943-1955.	4.5	39
29	Real time chemical imaging of a working catalytic membrane reactor during oxidative coupling of methane. <i>Chemical Communications</i> , 2015, 51, 12752-12755.	4.1	63