

Vesna Middelkoop

List of Publications by Year in descending order

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41
papers

1,001
citations

361413

20
h-index

434195

31
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42
all docs

42
docs citations

42
times ranked

1108
citing authors

#	ARTICLE	IF	CITATIONS
1	5D operando-Atomographic diffraction imaging of a catalyst bed. <i>Nature Communications</i> , 2018, 9, 4751.	12.8	76
2	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
3	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
4	Multiscale investigation of adsorption properties of novel 3D printed UTSA-16 structures. <i>Chemical Engineering Journal</i> , 2020, 402, 126166.	12.7	55
5	Next frontiers in cleaner synthesis: 3D printed graphene-supported CeZrLa mixed-oxide nanocatalyst for CO ₂ utilisation and direct propylene carbonate production. <i>Journal of Cleaner Production</i> , 2019, 214, 606-614.	9.3	54
6	3D printed versus spherical adsorbents for gas sweetening. <i>Chemical Engineering Journal</i> , 2019, 357, 309-319.	12.7	54
7	Efficient Continuous Hydrothermal Flow Synthesis of Carbon Quantum Dots from a Targeted Biomass Precursor for On-Off Metal Ions Nanosensing. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 2559-2569.	6.7	50
8	Reactive air brazing for sealing mixed ionic electronic conducting hollow fibre membranes. <i>Acta Materialia</i> , 2015, 88, 74-82.	7.9	45
9	Imaging the inside of a Continuous Nanoceramic Synthesizer under Supercritical Water Conditions Using High-Energy Synchrotron X-Radiation. <i>Chemistry of Materials</i> , 2009, 21, 2430-2435.	6.7	42
10	Interlaced X-ray diffraction computed tomography. <i>Journal of Applied Crystallography</i> , 2016, 49, 485-496.	4.5	40
11	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
12	Preparation of porous stainless steel hollow fibers by robotic fiber deposition. <i>Journal of Membrane Science</i> , 2013, 437, 17-24.	8.2	35
13	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
14	High-throughput continuous hydrothermal flow synthesis of Zn-Ce oxides: unprecedented solubility of Zn in the nanoparticle fluorite lattice. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 4331-4349.	3.4	33
15	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
16	Continuous hydrothermal flow synthesis of graphene quantum dots. <i>Reaction Chemistry and Engineering</i> , 2018, 3, 949-958.	3.7	27
17	Ultrafast screening of commercial sorbent materials for VOC adsorption using real-time FTIR spectroscopy. <i>Separation and Purification Technology</i> , 2018, 207, 284-290.	7.9	26
18	Scaling up of 3D printed and Ni/Al ₂ O ₃ coated reactors for CO ₂ methanation. <i>Reaction Chemistry and Engineering</i> , 2019, 4, 1318-1330.	3.7	23

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19	New high temperature sealing technique and permeability data for hollow fiber BSCF perovskite membranes. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016, 107, 206-219.	3.6	22
20	Imaging the continuous hydrothermal flow synthesis of nanoparticulate CeO ₂ at different supercritical water temperatures using in situ angle-dispersive diffraction. <i>Journal of Supercritical Fluids</i> , 2014, 87, 118-128.	3.2	20
21	Development and characterisation of dense lanthanum-based perovskite oxygen-separation capillary membranes for high-temperature applications. <i>Journal of Membrane Science</i> , 2014, 468, 250-258.	8.2	20
22	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
23	Fabrication of perovskite capillary membranes for high temperature gas separation. <i>Catalysis Today</i> , 2012, 193, 172-178.	4.4	17
24	Impact of sulphur contamination on the oxygen transport mechanism through Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} : Relevant issues in the development of capillary and hollow fibre membrane geometry.. <i>Journal of Membrane Science</i> , 2013, 428, 123-130.	8.2	17
25	In situ 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
26	Review on Additive Manufacturing of Catalysts and Sorbents and the Potential for Process Intensification. <i>Frontiers in Chemical Engineering</i> , 2022, 4, .	2.7	13
27	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
28	Surface activation of asymmetric CaTi _{1-x} Fe _x O _{3-δ} tubular membranes for oxygen separation. <i>Journal of Membrane Science</i> , 2015, 477, 58-64.	8.2	9
29	Hydrothermal/autoclave synthesis of AlPO ₅ : a prototype space/time study of crystallisation gradients. <i>Journal of Materials Science</i> , 2008, 43, 2222-2228.	3.7	7
30	Sustainable iron-based oxygen carriers for hydrogen production – Real-time operando investigation. <i>International Journal of Greenhouse Gas Control</i> , 2019, 88, 393-402.	4.6	7
31	Multi-Scale Studies of 3D Printed Mn-Na-W/SiO ₂ Catalyst for Oxidative Coupling of Methane. <i>Catalysts</i> , 2021, 11, 290.	3.5	7
32	3D Printed PEI Containing Adsorbents Supported by Carbon Nanostructures for Post-combustion Carbon Capture From Biomass Fired Power Plants. <i>Frontiers in Climate</i> , 2021, 3, .	2.8	7
33	3D printed catalytic reactors for aerobic selective oxidation of benzyl alcohol into benzaldehyde in continuous multiphase flow. <i>Sustainable Materials and Technologies</i> , 2021, 30, e00329.	3.3	6
34	Modeling of the performance of BSCF capillary membranes in four-end and three-end integration mode. <i>Ceramics International</i> , 2013, 39, 4113-4123.	4.8	5
35	Thickness controlled SiO ₂ /TiO ₂ sol-gel coating by spraying. <i>Open Ceramics</i> , 2021, 6, 100121.	2.0	4
36	Oxygen Transport Ceramic Membranes: Perovskite and Nonperovskite. , 2016, , 1442-1446.		1

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37	Mixed Conducting Ceramic Capillary Membranes for Catalytic Membrane Reactors: Performance of $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ Capillaries. <i>Advanced Materials Research</i> , 2012, 560-561, 853-859.	0.3	0
38	Real-time chemical imaging of working catalytic membrane reactors. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2017, 73, C853-C853.	0.1	0
39	Reactive Air Brazing (RAB) for Gas Separation Membranes. , 2014, , 1-3.		0
40	Oxygen Transport Ceramic Membranes: Perovskite and Non-perovskite. , 2014, , 1-5.		0
41	Reactive Air Brazing (RAB) for Gas Separation Membranes. , 2016, , 1710-1713.		0