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 g-index
42 all docs	42 docs citations	42 times ranked	1108 citing authors

#	Article	IF	Citations
1	Review on Additive Manufacturing of Catalysts and Sorbents and the Potential for Process Intensification. Frontiers in Chemical Engineering, 2022, 4, .	2.7	13
2	Real-time tomographic diffraction imaging of catalytic membrane reactors for the oxidative coupling of methane. Catalysis Today, 2021, 364, 242-255.	4.4	19
3	Efficient Continuous Hydrothermal Flow Synthesis of Carbon Quantum Dots from a Targeted Biomass Precursor for Onâ€“Off Metal Ions Nanosensing. ACS Sustainable Chemistry and Engineering, 2021, 9, 2559-2569.	6.7	50
4	Multi-Scale Studies of 3D Printed Mnâ€“Naâ€“W/SiO2 Catalyst for Oxidative Coupling of Methane. Catalysts, 2021, 11, 290.	3.5	7
5	A deep convolutional neural network for real-time full profile analysis of big powder diffraction data. Npj Computational Materials, 2021, 7, .	8.7	31
6	Thickness controlled SiO2/TiO2 sol-gel coating by spraying. Open Ceramics, 2021, 6, 100121.	2.0	4
7	3D Printed PEI Containing Adsorbents Supported by Carbon Nanostructures for Post-combustion Carbon Capture From Biomass Fired Power Plants. Frontiers in Climate, 2021, 3, .	2.8	7
8	3D printed catalytic reactors for aerobic selective oxidation of benzyl alcohol into benzaldehyde in continuous multiphase flow. Sustainable Materials and Technologies, 2021, 30, e00329.	3.3	6
9	Multi-length scale 5D diffraction imaging of Niâ€“Pd/CeO₂â€“ZrO₂/Al₂O₃ catalyst during partial oxidation of methane. Journal of Materials Chemistry A, 2021, 9, 11331-11346.	10.3	12
10	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_{3â^Î´} membranes during oxidative coupling of methane. Physical Chemistry Chemical Physics, 2020, 22, 18964-18975.	2.8	16
11	Multiscale investigation of adsorption properties of novel 3D printed UTSA-16 structures. Chemical Engineering Journal, 2020, 402, 126166.	12.7	55
12	Real-time multi-length scale chemical tomography of fixed bed reactors during the oxidative coupling of methane reaction. Journal of Catalysis, 2020, 386, 39-52.	6.2	35
13	Sustainable iron-based oxygen carriers for hydrogen production â€“ Real-time operando investigation. International Journal of Greenhouse Gas Control, 2019, 88, 393-402.	4.6	7
14	3D printed Ni/Al2O3 based catalysts for CO2 methanation - a comparative and operando XRD-CT study. Journal of CO2 Utilization, 2019, 33, 478-487.	6.8	62
15	Scaling up of 3D printed and Ni/Al2O3 coated reactors for CO2 methanation. Reaction Chemistry and Engineering, 2019, 4, 1318-1330.	3.7	23
16	Next frontiers in cleaner synthesis: 3D printed graphene-supported CeZrLa mixed-oxide nanocatalyst for CO2 utilisation and direct propylene carbonate production. Journal of Cleaner Production, 2019, 214, 606-614.	9.3	54
17	3D printed versus spherical adsorbents for gas sweetening. Chemical Engineering Journal, 2019, 357, 309-319.	12.7	54
18	Continuous hydrothermal flow synthesis of graphene quantum dots. Reaction Chemistry and Engineering, 2018, 3, 949-958.	3.7	27

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19	5D operandoÂtomographic diffraction imaging of a catalyst bed. Nature Communications, 2018, 9, 4751.	12.8	76
20	Ultrafast screening of commercial sorbent materials for VOC adsorption using real-time FTIR spectroscopy. Separation and Purification Technology, 2018, 207, 284-290.	7.9	26
21	Real-time chemical imaging of working catalytic membrane reactors. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C853-C853.	0.1	0
22	Interlaced X-ray diffraction computed tomography. Journal of Applied Crystallography, 2016, 49, 485-496.	4.5	40
23	New high temperature sealing technique and permeability data for hollow fiber BSCF perovskite membranes. Chemical Engineering and Processing: Process Intensification, 2016, 107, 206-219.	3.6	22
24	Reactive Air Brazing (RAB) for Gas Separation Membranes. , 2016, , 1710-1713.		0
25	Oxygen Transport Ceramic Membranes: Perovskite and Nonperovskite. , 2016, , 1442-1446.		1
26	Removing multiple outliers and single-crystal artefacts from X-ray diffraction computed tomography data. Journal of Applied Crystallography, 2015, 48, 1943-1955.	4.5	39
27	Real time chemical imaging of a working catalytic membrane reactor during oxidative coupling of methane. Chemical Communications, 2015, 51, 12752-12755.	4.1	63
28	Surface activation of asymmetric CaTi1â^'xFexO3â^'Î´ tubular membranes for oxygen separation. Journal of Membrane Science, 2015, 477, 58-64.	8.2	9
29	Reactive air brazing for sealing mixed ionic electronic conducting hollow fibre membranes. Acta Materialia, 2015, 88, 74-82.	7.9	45
30	Imaging the continuous hydrothermal flow synthesis of nanoparticulate CeO2 at different supercritical water temperatures using in situ angle-dispersive diffraction. Journal of Supercritical Fluids, 2014, 87, 118-128.	3.2	20
31	Development and characterisation of dense lanthanum-based perovskite oxygen-separation capillary membranes for high-temperature applications. Journal of Membrane Science, 2014, 468, 250-258.	8.2	20
32	Reactive Air Brazing (RAB) for Gas Separation Membranes. , 2014, , 1-3.		0
33	Oxygen Transport Ceramic Membranes: Perovskite and Non-perovskite. , 2014, , 1-5.		0
34	Preparation of porous stainless steel hollow fibers by robotic fiber deposition. Journal of Membrane Science, 2013, 437, 17-24.	8.2	35
35	Modeling of the performance of BSCF capillary membranes in four-end and three-end integration mode. Ceramics International, 2013, 39, 4113-4123.	4.8	5
36	Impact of sulphur contamination on the oxygen transport mechanism through Ba0.5Sr0.5Co0.8Fe0.2O3â^'Î´: Relevant issues in the development of capillary and hollow fibre membrane geometry.. Journal of Membrane Science, 2013, 428, 123-130.	8.2	17

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37	Mixed Conducting Ceramic Capillary Membranes for Catalytic Membrane Reactors: Performance of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-Î´} Capillaries. Advanced Materials Research, 2012, 560-561, 853-859.	0.3	0
38	Fabrication of perovskite capillary membranes for high temperature gas separation. Catalysis Today, 2012, 193, 172-178.	4.4	17
39	High-throughput continuous hydrothermal flow synthesis of Znâ€“Ce oxides: unprecedented solubility of Zn in the nanoparticle fluorite lattice. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 4331-4349.	3.4	33
40	Imaging the inside of a Continuous Nanoceramic Synthesizer under Supercritical Water Conditions Using High-Energy Synchrotron X-Radiation. Chemistry of Materials, 2009, 21, 2430-2435.	6.7	42
41	Hydrothermal/autoclave synthesis of AlPO-5: a prototype space/time study of crystallisation gradients. Journal of Materials Science, 2008, 43, 2222-2228.	3.7	7