Davide Mattia

List of Publications by Year in descending order

100 papers	5,263 citations	109264 35 h-index	85498 71 g-index
101 all docs	101 docs citations	101 times ranked	7080 citing authors

#	Article	IF	Citations
1	A review of reverse osmosis membrane materials for desalinationâ€"Development to date and future potential. Journal of Membrane Science, 2011, 370, 1-22.	4.1	1,730
2	Perspective on 3D printing of separation membranes and comparison to related unconventional fabrication techniques. Journal of Membrane Science, 2017, 523, 596-613.	4.1	310
3	Review: static and dynamic behavior of liquids inside carbon nanotubes. Microfluidics and Nanofluidics, 2008, 5, 289-305.	1.0	240
4	Effect of Graphitization on the Wettability and Electrical Conductivity of CVD-Carbon Nanotubes and Films. Journal of Physical Chemistry B, 2006, 110, 9850-9855.	1.2	193
5	Explaining high flow rate of water in carbon nanotubes via solidâ€"liquid molecular interactions. Microfluidics and Nanofluidics, 2012, 13, 125-130.	1.0	111
6	Water flow enhancement in hydrophilic nanochannels. Nanoscale, 2012, 4, 2621.	2.8	96
7	Carbon nanotube membranes: From flow enhancement to permeability. Journal of Membrane Science, 2015, 475, 266-272.	4.1	90
8	Flow enhancement in nanotubes of different materials and lengths. Journal of Chemical Physics, 2014, 140, 014702.	1.2	84
9	3D printed composite membranes with enhanced anti-fouling behaviour. Journal of Membrane Science, 2019, 574, 76-85.	4.1	84
10	Enhancing the photo-corrosion resistance of ZnO nanowire photocatalysts. Journal of Hazardous Materials, 2019, 378, 120799.	6.5	81
11	Wetting of CVD Carbon Films by Polar and Nonpolar Liquids and Implications for Carbon Nanopipes. Langmuir, 2006, 22, 1789-1794.	1.6	75
12	Formation of hydrocarbons via CO2 hydrogenation â€" A thermodynamic study. Journal of CO2 Utilization, 2014, 6, 34-39.	3.3	71
13	Investigations into the conversion of ethanol to 1,3-butadiene using MgO:SiO2 supported catalysts. Catalysis Communications, 2014, 49, 25-28.	1.6	70
14	Fouling resistant 2D boron nitride nanosheet â€" PES nanofiltration membranes. Journal of Membrane Science, 2018, 563, 949-956.	4.1	69
15	Magnetically assembled carbon nanotube tipped pipettes. Applied Physics Letters, 2007, 90, 103108.	1.5	65
16	Effect of support of Co-Na-Mo catalysts on the direct conversion of CO2 to hydrocarbons. Journal of CO2 Utilization, 2016, 16, 97-103.	3.3	65
17	Cobalt catalysts for the conversion of CO2 to light hydrocarbons at atmospheric pressure. Chemical Communications, 2013, 49, 11683.	2.2	64
18	3D Printed Fouling-Resistant Composite Membranes. ACS Applied Materials & Interfaces, 2019, 11, 26373-26383.	4.0	60

#	ARTICLE	IF	CITATIONS
19	Continuous Production of Cellulose Microbeads via Membrane Emulsification. ACS Sustainable Chemistry and Engineering, 2017, 5, 5931-5939.	3.2	57
20	Hierarchical 3D ZnO nanowire structures via fast anodization of zinc. Journal of Materials Chemistry A, 2015, 3, 17569-17577.	5.2	55
21	Soft, Oxidative Stripping of Alkyl Thiolate Ligands from Hydroxyapatiteâ€Supported Gold Nanoclusters for Oxidation Reactions. Chemistry - an Asian Journal, 2016, 11, 532-539.	1.7	55
22	Ethanol to 1,3â€Butadiene Conversion by using ZrZnâ€Containing MgO/SiO₂ Systems Prepared by Coâ€precipitation and Effect of Catalyst Acidity Modification. ChemCatChem, 2016, 8, 2376-2386.	1.8	54
23	Wetting behaviour of hydrophilic and hydrophobic nanostructured porous anodic alumina. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 420, 53-58.	2.3	52
24	2D boron nitride nanosheets in PIM-1 membranes for CO2/CH4 separation. Journal of Membrane Science, 2021, 636, 119527.	4.1	52
25	Identifying the largest environmental life cycle impacts during carbon nanotube synthesis via chemical vapour deposition. Journal of Cleaner Production, 2013, 42, 180-189.	4.6	48
26	Towards Carbonâ€Neutral CO₂ Conversion to Hydrocarbons. ChemSusChem, 2015, 8, 4064-4072.	3.6	48
27	Effect of nanostructured ceria as support for the iron catalysed hydrogenation of CO₂ into hydrocarbons. Physical Chemistry Chemical Physics, 2016, 18, 15496-15500.	1.3	48
28	Monolithic nanoporous alumina membranes for ultrafiltration applications: Characterization, selectivityâ€"permeability analysis and fouling studies. Journal of Membrane Science, 2013, 435, 52-61.	4.1	47
29	Multiscale design of ZnO nanostructured photocatalysts. Physical Chemistry Chemical Physics, 2018, 20, 6648-6656.	1.3	47
30	Induction and measurement of minute flow rates through nanopipes. Physics of Fluids, 2007, 19, 013603.	1.6	46
31	Thickness, stability and contact angle of liquid films on and inside nanofibres, nanotubes and nanochannels. Journal of Colloid and Interface Science, 2012, 384, 149-156.	5.0	46
32	N-Doped Fe@CNT for Combined RWGS/FT CO₂ Hydrogenation. ACS Sustainable Chemistry and Engineering, 2019, 7, 7395-7402.	3.2	44
33	High CO2 and CO conversion to hydrocarbons using bridged Fe nanoparticles on carbon nanotubes. Catalysis Science and Technology, 2013, 3, 1202.	2.1	42
34	Investigation of a copper(i) biquinoline complex for application in dye-sensitized solar cells. RSC Advances, 2013, 3, 23361.	1.7	41
35	High flux thin-film nanocomposites with embedded boron nitride nanotubes for nanofiltration. Journal of Membrane Science, 2020, 597, 117749.	4.1	40
36	Fe@CNT-monoliths for the conversion of carbon dioxide to hydrocarbons: structural characterisation and Fischerâ€"Tropsch reactivity investigations. Catalysis Science and Technology, 2014, 4, 3351-3358.	2.1	37

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37	Microkinetic analysis of ethanol to 1,3-butadiene reactions over MgO-SiO 2 catalysts based on characterization of experimental fluctuations. Chemical Engineering Journal, 2017, 308, 988-1000.	6.6	34
38	Multifunctional carbon nanotubes with nanoparticles embedded in their walls. Nanotechnology, 2007, 18, 155305.	1.3	33
39	Zinc oxide nanostructured films produced via anodization: a rational design approach. RSC Advances, 2013, 3, 25323.	1.7	33
40	Modelling flow enhancement in nanochannels: Viscosity and slippage. Applied Mathematics Letters, 2013, 26, 991-994.	1.5	32
41	Modelling the effects of reaction temperature and flow rate on the conversion of ethanol to 1,3-butadiene. Applied Catalysis A: General, 2017, 530, 37-47.	2.2	32
42	Kinetics of CO₂ Hydrogenation to Hydrocarbons over Ironâ€“Silica Catalysts. ChemPhysChem, 2017, 18, 3211-3218.	1.0	31
43	Sustainable Synthesis of Oxalic and Succinic Acid through Aerobic Oxidation of C6 Polyols Under Mild Conditions. ChemSusChem, 2018, 11, 1073-1081.	3.6	30
44	Field controlled nematic-to-isotropic phase transition in liquid crystalâ€“carbon nanotube composites. Journal of Applied Physics, 2008, 103, 064314.	1.1	29
45	Amontonian frictional behaviour of nanostructured surfaces. Physical Chemistry Chemical Physics, 2011, 13, 9318.	1.3	29
46	Promoter Effects on Ironâ€“Silica Fischerâ€“Tropsch Nanocatalysts: Conversion of Carbon Dioxide to Lower Olefins and Hydrocarbons at Atmospheric Pressure. ChemPlusChem, 2013, 78, 1536-1544.	1.3	28
47	Bean Seedling Growth Enhancement Using Magnetite Nanoparticles. Journal of Agricultural and Food Chemistry, 2018, 66, 5746-5755.	2.4	28
48	Sustained Frictional Instabilities on Nanodomed Surfaces: Stickâ€“Slip Amplitude Coefficient. ACS Nano, 2013, 7, 10850-10862.	7.3	27
49	Water permeation in carbon nanotube membranes. Current Opinion in Chemical Engineering, 2014, 4, 32-37.	3.8	27
50	Nanostructured WO₃ photoanodes for efficient water splitting via anodisation in citric acid. RSC Advances, 2017, 7, 35221-35227.	1.7	26
51	Using life cycle assessment to measure the environmental performance of catalysts and directing research in the conversion of CO2 into commodity chemicals: a look at the potential for fuels from â€˜thin-airâ€™. RSC Advances, 2013, 3, 12244.	1.7	25
52	Photocatalytic ZnO Foams for Micropollutant Degradation. Advanced Sustainable Systems, 2021, 5, 2000208.	2.7	22
53	Wetting of nanotubes. Current Opinion in Colloid and Interface Science, 2011, 16, 259-265.	3.4	20
54	Manufacturing of Nanoemulsions Using Nanoporous Anodized Alumina Membranes: Experimental Investigation and Process Modeling. Industrial & Engineering Chemistry Research, 2013, 52, 14866-14874.	1.8	19

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55	Hierarchical growth of TiO2 nanosheets on anodic ZnO nanowires for high efficiency dye-sensitized solar cells. Journal of Power Sources, 2016, 325, 365-374.	4.0	19
56	Surface-Controlled Water Flow in Nanotube Membranes. ACS Applied Materials & Interfaces, 2019, 11, 1689-1698.	4.0	18
57	Enzyme-Functionalized Cellulose Beads as a Promising Antimicrobial Material. Biomacromolecules, 2021, 22, 754-762.	2.6	17
58	3D printed nanofiltration composite membranes with reduced concentration polarisation. Journal of Membrane Science, 2022, 644, 120137.	4.1	17
59	A Single Tube Contactor for Testing Membrane Ozonation. Water (Switzerland), 2018, 10, 1416.	1.2	16
60	Enhanced nanoparticle rejection in aligned boron nitride nanotube membranes. Nanoscale, 2020, 12, 21138-21145.	2.8	15
61	Wetting of HIP AlN-TiB2 ceramic composites by liquid metals and alloys. Journal of the European Ceramic Society, 2005, 25, 1797-1803.	2.8	14
62	Production of Nanoemulsions Using Anodic Alumina Membranes in a Stirred-Cell Setup. Industrial & Engineering Chemistry Research, 2017, 56, 7541-7550.	1.8	14
63	Oxidation behaviour of an aluminium nitrideâ€"hafnium diboride ceramic composite. Journal of the European Ceramic Society, 2005, 25, 1789-1796.	2.8	13
64	Selectivity-permeability optimization of functionalised CNTâ€"polymer membranes for water treatment: A modeling study. Separation and Purification Technology, 2015, 146, 235-242.	3.9	13
65	3D printed porous contactors for enhanced oil droplet coalescence. Journal of Membrane Science, 2019, 590, 117274.	4.1	13
66	One-step production of monolith-supported long carbon nanotube arrays. Carbon, 2013, 51, 327-334.	5.4	12
67	Electroosmotic flow in nanoporous membranes in the region of electric double layer overlap. Microfluidics and Nanofluidics, 2014, 16, 711-719.	1.0	11
68	A novel technique for fabrication of micro- and nanofluidic device with embedded single carbon nanotube. Sensors and Actuators B: Chemical, 2011, 154, 67-72.	4.0	10
69	Continuous Production of Metal Oxide Nanoparticles via Membrane Emulsificationâ€"Precipitation. Industrial & Engineering Chemistry Research, 2020, 59, 9085-9094.	1.8	9
70	Hydrophobic poly(vinylidene fluoride) / siloxene nanofiltration membranes. Journal of Membrane Science, 2021, 635, 119447.	4.1	9
71	Imaging of liquid crystals confined in carbon nanopipes. Applied Physics Letters, 2006, 89, 043123.	1.5	8
72	Electro-osmotic flow enhancement in carbon nanotube membranes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150268.	1.6	8

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73	Polymer nanotube membranes synthesized via liquid deposition in anodic alumina. Colloids and Interface Science Communications, 2020, 39, 100334.	2.0	8
74	Untangling the physics of water transport in boron nitride nanotubes. Nanoscale, 2021, 13, 18096-18102.	2.8	8
75	Keratinâ€–Chitosan Microcapsules via Membrane Emulsification and Interfacial Complexation. ACS Sustainable Chemistry and Engineering, 2021, 9, 16617-16626.	3.2	8
76	Synthesis of photocatalytic pore size-tuned ZnO molecular foams. Journal of Materials Chemistry A, 2022, 10, 11542-11552.	5.2	7
77	Smoothing of nanoscale roughness based on the Kelvin effect. Nanotechnology, 2008, 19, 365702.	1.3	6
78	Study of Fluid and Transport Properties of Porous Anodic Aluminum Membranes by Dynamic Atomic Force Microscopy. Langmuir, 2013, 29, 8969-8977.	1.6	6
79	Continuous rotary membrane emulsification for the production of sustainable Pickering emulsions. Chemical Engineering Science, 2022, 249, 117328.	1.9	6
80	Semi-continuous production of iron oxide nanoparticles via membrane emulsification. Applied Surface Science, 2019, 463, 504-512.	3.1	5
81	Highly Selective, Ironâ€Driven CO₂ Methanation. Energy Technology, 2019, 7, 294-306.	1.8	5
82	Photocatalytic immobilised TiO2 nanostructures via fluoride-free anodisation. Journal of Environmental Chemical Engineering, 2020, 8, 103798.	3.3	5
83	Cellulose Microbeads: Toward the Controlled Release of Nutrients to Plants. ACS Agricultural Science and Technology, 0, , .	1.0	5
84	Controlled hydrothermal pore reduction in anodic alumina membranes. Nanoscale, 2014, 6, 13952-13957.	2.8	4
85	Materials enabling nanofluidic flow enhancement. MRS Bulletin, 2017, 42, 273-277.	1.7	4
86	Continuous-flow liquid-phase dehydrogenation of 1,4-cyclohexanedione in a structured multichannel reactor. Reaction Chemistry and Engineering, 2019, 4, 27-40.	1.9	4
87	Multienzyme Cellulose Films as Sustainable and Self-Degradable Hydrogen Peroxide-Producing Material. Biomacromolecules, 2020, 21, 5315-5322.	2.6	4
88	Shedding Light Onto the Nature of Iron Decorated Graphene and Graphite Oxide Nanohybrids for CO₂ Conversion at Atmospheric Pressure. ChemistryOpen, 2020, 9, 242-252.	0.9	4
89	Stable Cellulose Nanofibril Microcapsules from Pickering Emulsion Templates. Langmuir, 2022, 38, 3370-3379.	1.6	4
90	Production of sub-10 micrometre cellulose microbeads using isoporous membranes. , 2022, 2, 100024.		4

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91	Nanoporous WO3 grown on a 3D tungsten mesh by electrochemical anodization for enhanced photoelectrocatalytic degradation of tetracycline in a continuous flow reactor. Journal of Electroanalytical Chemistry, 2022, 920, 116617.	1.9	3
92	The Effect of Deformation on Room Temperature Coulomb Blockade using Conductive Carbon Nanotubes. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4206-10.	0.5	2
93	Self-assembled Multi-walled Carbon Nanotube Coatings. Materials Research Society Symposia Proceedings, 2007, 1057, 1.	0.1	1
94	Water transport through nanoporous materials: Porous silicon and single walled carbon nanotubes. , 2010, , .		1
95	Nanostructured carbon membranes for breakthrough filtration applications: advancing the science, engineering and design. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150035.	1.6	1
96	REMOVED: Explaining the Ultra-High Water Flow Rates Observed in Carbon Nanotube Membranes. Procedia Engineering, 2012, 44, 479-481.	1.2	0
97	Editorial overview: Going small for big impact. Current Opinion in Green and Sustainable Chemistry, 2018, 12, A1-A2.	3.2	0
98	Wetting in Carbon Inorganic and Organic Nanotubes and Nanochannels. , 2013, , .		0
99	Membranes for Seawater Desalination. , 2015, , 1-3.		0
100	Metal oxide foams for pharmaceutical amorphization. CrystEngComm, 0, , .	1.3	0