

# Davide Mattia

## List of Publications by Citations

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91  
papers

4,187  
citations

32  
h-index

64  
g-index

101  
ext. papers

4,708  
ext. citations

6.2  
avg, IF

5.92  
L-index

#	Paper	IF	Citations
91	A review of reverse osmosis membrane materials for desalination Development to date and future potential. <i>Journal of Membrane Science</i> , <b>2011</b> , 370, 1-22	9.6	1450
90	Perspective on 3D printing of separation membranes and comparison to related unconventional fabrication techniques. <i>Journal of Membrane Science</i> , <b>2017</b> , 523, 596-613	9.6	212
89	Review: static and dynamic behavior of liquids inside carbon nanotubes. <i>Microfluidics and Nanofluidics</i> , <b>2008</b> , 5, 289-305	2.8	211
88	Effect of graphitization on the wettability and electrical conductivity of CVD-carbon nanotubes and films. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 9850-5	3.4	171
87	Explaining high flow rate of water in carbon nanotubes via solid-liquid molecular interactions. <i>Microfluidics and Nanofluidics</i> , <b>2012</b> , 13, 125-130	2.8	91
86	Water flow enhancement in hydrophilic nanochannels. <i>Nanoscale</i> , <b>2012</b> , 4, 2621-7	7.7	90
85	Carbon nanotube membranes: From flow enhancement to permeability. <i>Journal of Membrane Science</i> , <b>2015</b> , 475, 266-272	9.6	80
84	Flow enhancement in nanotubes of different materials and lengths. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 014702	3.9	73
83	Wetting of CVD carbon films by polar and nonpolar liquids and implications for carbon nanopipes. <i>Langmuir</i> , <b>2006</b> , 22, 1789-94	4	70
82	Investigations into the conversion of ethanol to 1,3-butadiene using MgO:SiO <sub>2</sub> supported catalysts. <i>Catalysis Communications</i> , <b>2014</b> , 49, 25-28	3.2	63
81	Formation of hydrocarbons via CO <sub>2</sub> hydrogenation – A thermodynamic study. <i>Journal of CO<sub>2</sub> Utilization</i> , <b>2014</b> , 6, 34-39	7.6	62
80	Magnetically assembled carbon nanotube tipped pipettes. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 103108	3.4	59
79	3D printed composite membranes with enhanced anti-fouling behaviour. <i>Journal of Membrane Science</i> , <b>2019</b> , 574, 76-85	9.6	53
78	Soft, Oxidative Stripping of Alkyl Thiolate Ligands from Hydroxyapatite-Supported Gold Nanoclusters for Oxidation Reactions. <i>Chemistry - an Asian Journal</i> , <b>2016</b> , 11, 532-9	4.5	51
77	Fouling resistant 2D boron nitride nanosheet [PES nanofiltration membranes. <i>Journal of Membrane Science</i> , <b>2018</b> , 563, 949-956	9.6	51
76	Enhancing the photo-corrosion resistance of ZnO nanowire photocatalysts. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 378, 120799	12.8	47
75	Cobalt catalysts for the conversion of CO <sub>2</sub> to light hydrocarbons at atmospheric pressure. <i>Chemical Communications</i> , <b>2013</b> , 49, 11683-5	5.8	47

74	Ethanol to 1,3-Butadiene Conversion by using ZrZn-Containing MgO/SiO <sub>2</sub> Systems Prepared by Co-precipitation and Effect of Catalyst Acidity Modification. <i>ChemCatChem</i> , <b>2016</b> , 8, 2376-2386	5.2	47
73	Effect of support of Co-Na-Mo catalysts on the direct conversion of CO <sub>2</sub> to hydrocarbons. <i>Journal of CO<sub>2</sub> Utilization</i> , <b>2016</b> , 16, 97-103	7.6	46
72	Wetting behaviour of hydrophilic and hydrophobic nanostructured porous anodic alumina. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2013</b> , 420, 53-58	5.1	44
71	Induction and measurement of minute flow rates through nanopipes. <i>Physics of Fluids</i> , <b>2007</b> , 19, 013603	4.4	43
70	Monolithic nanoporous alumina membranes for ultrafiltration applications: Characterization, selectivity permeability analysis and fouling studies. <i>Journal of Membrane Science</i> , <b>2013</b> , 435, 52-61	9.6	42
69	Towards Carbon-Neutral CO <sub>2</sub> Conversion to Hydrocarbons. <i>ChemSusChem</i> , <b>2015</b> , 8, 4064-72	8.3	42
68	Thickness, stability and contact angle of liquid films on and inside nanofibres, nanotubes and nanochannels. <i>Journal of Colloid and Interface Science</i> , <b>2012</b> , 384, 149-56	9.3	41
67	Hierarchical 3D ZnO nanowire structures via fast anodization of zinc. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 17569-17577	13	40
66	Identifying the largest environmental life cycle impacts during carbon nanotube synthesis via chemical vapour deposition. <i>Journal of Cleaner Production</i> , <b>2013</b> , 42, 180-189	10.3	40
65	Continuous Production of Cellulose Microbeads via Membrane Emulsification. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2017</b> , 5, 5931-5939	8.3	39
64	High CO <sub>2</sub> and CO conversion to hydrocarbons using bridged Fe nanoparticles on carbon nanotubes. <i>Catalysis Science and Technology</i> , <b>2013</b> , 3, 1202	5.5	39
63	3D Printed Fouling-Resistant Composite Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 26373-26383	9.5	38
62	Effect of nanostructured ceria as support for the iron catalysed hydrogenation of CO <sub>2</sub> into hydrocarbons. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 15496-500	3.6	35
61	Investigation of a copper(I) biquinoline complex for application in dye-sensitized solar cells. <i>RSC Advances</i> , <b>2013</b> , 3, 23361	3.7	34
60	Fe@CNT-monoliths for the conversion of carbon dioxide to hydrocarbons: structural characterisation and Fischer-Tropsch reactivity investigations. <i>Catalysis Science and Technology</i> , <b>2014</b> , 4, 3351-3358	5.5	32
59	Multiscale design of ZnO nanostructured photocatalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 6648-6656	3.6	31
58	Multifunctional carbon nanotubes with nanoparticles embedded in their walls. <i>Nanotechnology</i> , <b>2007</b> , 18, 155305	3.4	29
57	Modelling flow enhancement in nanochannels: Viscosity and slippage. <i>Applied Mathematics Letters</i> , <b>2013</b> , 26, 991-994	3.5	28

56	Amontonian frictional behaviour of nanostructured surfaces. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 9318-26	3.6	28
55	Zinc oxide nanostructured films produced via anodization: a rational design approach. <i>RSC Advances</i> , <b>2013</b> , 3, 25323	3.7	27
54	N-Doped [email protected] for Combined RWGS/FT CO <sub>2</sub> Hydrogenation. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 7395-7402	8.3	25
53	Kinetics of CO Hydrogenation to Hydrocarbons over Iron-Silica Catalysts. <i>ChemPhysChem</i> , <b>2017</b> , 18, 3211-3218	5.3	25
52	Microkinetic analysis of ethanol to 1,3-butadiene reactions over MgO-SiO <sub>2</sub> catalysts based on characterization of experimental fluctuations. <i>Chemical Engineering Journal</i> , <b>2017</b> , 308, 988-1000	14.7	25
51	Field controlled nematic-to-isotropic phase transition in liquid crystal-carbon nanotube composites. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 064314	2.5	25
50	Sustained frictional instabilities on nanodomed surfaces: stick-slip amplitude coefficient. <i>ACS Nano</i> , <b>2013</b> , 7, 10850-62	16.7	24
49	High flux thin-film nanocomposites with embedded boron nitride nanotubes for nanofiltration. <i>Journal of Membrane Science</i> , <b>2020</b> , 597, 117749	9.6	24
48	Sustainable Synthesis of Oxalic and Succinic Acid through Aerobic Oxidation of C <sub>6</sub> Polyols Under Mild Conditions. <i>ChemSusChem</i> , <b>2018</b> , 11, 1073-1081	8.3	23
47	Water permeation in carbon nanotube membranes. <i>Current Opinion in Chemical Engineering</i> , <b>2014</b> , 4, 32-37	5.4	23
46	Using life cycle assessment to measure the environmental performance of catalysts and directing research in the conversion of CO <sub>2</sub> into commodity chemicals: a look at the potential for fuels from thin-air. <i>RSC Advances</i> , <b>2013</b> , 3, 12244	3.7	23
45	Promoter Effects on Iron-Silica Fischer-Tropsch Nanocatalysts: Conversion of Carbon Dioxide to Lower Olefins and Hydrocarbons at Atmospheric Pressure. <i>ChemPlusChem</i> , <b>2013</b> , 78, 1536-1544	2.8	23
44	Modelling the effects of reaction temperature and flow rate on the conversion of ethanol to 1,3-butadiene. <i>Applied Catalysis A: General</i> , <b>2017</b> , 530, 37-47	5.1	22
43	Nanostructured WO <sub>3</sub> photoanodes for efficient water splitting via anodisation in citric acid. <i>RSC Advances</i> , <b>2017</b> , 7, 35221-35227	3.7	21
42	Bean Seedling Growth Enhancement Using Magnetite Nanoparticles. <i>Journal of Agricultural and Food Chemistry</i> , <b>2018</b> , 66, 5746-5755	5.7	21
41	Wetting of nanotubes. <i>Current Opinion in Colloid and Interface Science</i> , <b>2011</b> , 16, 259-265	7.6	18
40	Hierarchical growth of TiO <sub>2</sub> nanosheets on anodic ZnO nanowires for high efficiency dye-sensitized solar cells. <i>Journal of Power Sources</i> , <b>2016</b> , 325, 365-374	8.9	17
39	Manufacturing of Nanoemulsions Using Nanoporous Anodized Alumina Membranes: Experimental Investigation and Process Modeling. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2013</b> , 52, 14866-14874	3.9	15

38	2D boron nitride nanosheets in PIM-1 membranes for CO <sub>2</sub> /CH <sub>4</sub> separation. <i>Journal of Membrane Science</i> , <b>2021</b> , 636, 119527	9.6	14
37	Wetting of HIP AlN-TiB <sub>2</sub> ceramic composites by liquid metals and alloys. <i>Journal of the European Ceramic Society</i> , <b>2005</b> , 25, 1797-1803	6	13
36	Surface-Controlled Water Flow in Nanotube Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 1689-1698	9.5	12
35	Production of Nanoemulsions Using Anodic Alumina Membranes in a Stirred-Cell Setup. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2017</b> , 56, 7541-7550	3.9	11
34	Selectivity-permeability optimization of functionalised CNT/polymer membranes for water treatment: A modeling study. <i>Separation and Purification Technology</i> , <b>2015</b> , 146, 235-242	8.3	11
33	Oxidation behaviour of an aluminium nitride/Bafnium diboride ceramic composite. <i>Journal of the European Ceramic Society</i> , <b>2005</b> , 25, 1789-1796	6	11
32	Enhanced nanoparticle rejection in aligned boron nitride nanotube membranes. <i>Nanoscale</i> , <b>2020</b> , 12, 21138-21145	7.7	11
31	One-step production of monolith-supported long carbon nanotube arrays. <i>Carbon</i> , <b>2013</b> , 51, 327-334	10.4	10
30	3D printed porous contactors for enhanced oil droplet coalescence. <i>Journal of Membrane Science</i> , <b>2019</b> , 590, 117274	9.6	9
29	Electroosmotic flow in nanoporous membranes in the region of electric double layer overlap. <i>Microfluidics and Nanofluidics</i> , <b>2014</b> , 16, 711-719	2.8	9
28	A novel technique for fabrication of micro- and nanofluidic device with embedded single carbon nanotube. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 154, 67-72	8.5	9
27	Electro-osmotic flow enhancement in carbon nanotube membranes. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2016</b> , 374,	3	8
26	A Single Tube Contactor for Testing Membrane Ozonation. <i>Water (Switzerland)</i> , <b>2018</b> , 10, 1416	3	8
25	Study of fluid and transport properties of porous anodic aluminum membranes by dynamic atomic force microscopy. <i>Langmuir</i> , <b>2013</b> , 29, 8969-77	4	6
24	Polymer nanotube membranes synthesized via liquid deposition in anodic alumina. <i>Colloids and Interface Science Communications</i> , <b>2020</b> , 39, 100334	5.4	6
23	Smoothing of nanoscale roughness based on the Kelvin effect. <i>Nanotechnology</i> , <b>2008</b> , 19, 365702	3.4	5
22	Imaging of liquid crystals confined in carbon nanopipes. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 043123	3.4	5
21	Materials enabling nanofluidic flow enhancement. <i>MRS Bulletin</i> , <b>2017</b> , 42, 273-277	3.2	4

20	Continuous-flow liquid-phase dehydrogenation of 1,4-cyclohexanedione in a structured multichannel reactor. <i>Reaction Chemistry and Engineering</i> , <b>2019</b> , 4, 27-40	4.9	4
19	Semi-continuous production of iron oxide nanoparticles via membrane emulsification. <i>Applied Surface Science</i> , <b>2019</b> , 463, 504-512	6.7	4
18	Highly Selective, Iron-Driven CO <sub>2</sub> Methanation. <i>Energy Technology</i> , <b>2019</b> , 7, 294-306	3.5	4
17	Continuous Production of Metal Oxide Nanoparticles via Membrane Emulsification/Precipitation. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2020</b> , 59, 9085-9094	3.9	4
16	Photocatalytic immobilised TiO <sub>2</sub> nanostructures via fluoride-free anodisation. <i>Journal of Environmental Chemical Engineering</i> , <b>2020</b> , 8, 103798	6.8	3
15	Controlled hydrothermal pore reduction in anodic alumina membranes. <i>Nanoscale</i> , <b>2014</b> , 6, 13952-7	7.7	3
14	3D printed nanofiltration composite membranes with reduced concentration polarisation. <i>Journal of Membrane Science</i> , <b>2022</b> , 644, 120137	9.6	3
13	Keratin-Chitosan Microcapsules via Membrane Emulsification and Interfacial Complexation.. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 16617-16626	8.3	3
12	Enzyme-Functionalized Cellulose Beads as a Promising Antimicrobial Material. <i>Biomacromolecules</i> , <b>2021</b> , 22, 754-762	6.9	3
11	Photocatalytic ZnO Foams for Micropollutant Degradation. <i>Advanced Sustainable Systems</i> , <b>2021</b> , 5, 2000308	3.08	3
10	Shedding Light Onto the Nature of Iron Decorated Graphene and Graphite Oxide Nanohybrids for CO Conversion at Atmospheric Pressure. <i>ChemistryOpen</i> , <b>2020</b> , 9, 242-252	2.3	1
9	Water transport through nanoporous materials: Porous silicon and single walled carbon nanotubes <b>2010</b> ,		1
8	The effect of deformation on room temperature Coulomb blockade using conductive carbon nanotubes. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2007</b> , 2007, 4206-10		1
7	Continuous rotary membrane emulsification for the production of sustainable Pickering emulsions. <i>Chemical Engineering Science</i> , <b>2022</b> , 249, 117328	4.4	1
6	Untangling the physics of water transport in boron nitride nanotubes. <i>Nanoscale</i> , <b>2021</b> , 13, 18096-18102	7.7	1
5	Hydrophobic poly(vinylidene fluoride) / siloxene nanofiltration membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 635, 119447	9.6	1
4	Production of sub-10 micrometre cellulose microbeads using isoporous membranes <b>2022</b> , 2, 100024		1
3	Multienzyme Cellulose Films as Sustainable and Self-Degradable Hydrogen Peroxide-Producing Material. <i>Biomacromolecules</i> , <b>2020</b> , 21, 5315-5322	6.9	0

- 2 REMOVED: Explaining the Ultra-High Water Flow Rates Observed in Carbon Nanotube Membranes. *Procedia Engineering*, **2012**, 44, 479-481
- 1 Self-assembled Multi-walled Carbon Nanotube Coatings. *Materials Research Society Symposia Proceedings*, **2007**, 1057, 1