

# Davide Mattia

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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 | 3D printed nanofiltration composite membranes with reduced concentration polarisation. <i>Journal of Membrane Science</i> , <b>2022</b> , 644, 120137                               | 9.6  | 3         |
| 90 | Continuous rotary membrane emulsification for the production of sustainable Pickering emulsions. <i>Chemical Engineering Science</i> , <b>2022</b> , 249, 117328                    | 4.4  | 1         |
| 89 | Production of sub-10 micrometre cellulose microbeads using isoporous membranes <b>2022</b> , 2, 100024  |      | 1         |
| 88 | 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         |
| 87 | Untangling the physics of water transport in boron nitride nanotubes. <i>Nanoscale</i> , <b>2021</b> , 13, 18096-18102  | 7.7  | 1         |
| 86 | Enzyme-Functionalized Cellulose Beads as a Promising Antimicrobial Material. <i>Biomacromolecules</i> , <b>2021</b> , 22, 754-762   | 6.9  | 3         |
| 85 | Photocatalytic ZnO Foams for Micropollutant Degradation. <i>Advanced Sustainable Systems</i> , <b>2021</b> , 5, 2000308   | 3.08 | 3         |
| 84 | 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        |
| 83 | Hydrophobic poly(vinylidene fluoride) / siloxene nanofiltration membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 635, 119447   | 9.6  | 1         |
| 82 | 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         |
| 81 | 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         |
| 80 | 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        |
| 79 | Enhanced nanoparticle rejection in aligned boron nitride nanotube membranes. <i>Nanoscale</i> , <b>2020</b> , 12, 21138-21145   | 7.7  | 11        |
| 78 | Multienzyme Cellulose Films as Sustainable and Self-Degradable Hydrogen Peroxide-Producing Material. <i>Biomacromolecules</i> , <b>2020</b> , 21, 5315-5322                         | 6.9  | 0         |
| 77 | 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         |
| 76 | 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         |
| 75 | 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         |

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|----|---|------|----|
| 74 | Enhancing the photo-corrosion resistance of ZnO nanowire photocatalysts. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 378, 120799                                    | 12.8 | 47 |
| 73 | 3D Printed Fouling-Resistant Composite Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 26373-26383   | 9.5  | 38 |
| 72 | 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 |
| 71 | 3D printed porous contactors for enhanced oil droplet coalescence. <i>Journal of Membrane Science</i> , <b>2019</b> , 590, 117274   | 9.6  | 9  |
| 70 | Semi-continuous production of iron oxide nanoparticles via membrane emulsification. <i>Applied Surface Science</i> , <b>2019</b> , 463, 504-512                               | 6.7  | 4  |
| 69 | Surface-Controlled Water Flow in Nanotube Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 1689-1698  | 9.5  | 12 |
| 68 | 3D printed composite membranes with enhanced anti-fouling behaviour. <i>Journal of Membrane Science</i> , <b>2019</b> , 574, 76-85  | 9.6  | 53 |
| 67 | Highly Selective, Iron-Driven CO <sub>2</sub> Methanation. <i>Energy Technology</i> , <b>2019</b> , 7, 294-306  | 3.5  | 4  |
| 66 | Multiscale design of ZnO nanostructured photocatalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 6648-6656  | 3.6  | 31 |
| 65 | 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 |
| 64 | A Single Tube Contactor for Testing Membrane Ozonation. <i>Water (Switzerland)</i> , <b>2018</b> , 10, 1416   | 3    | 8  |
| 63 | Bean Seedling Growth Enhancement Using Magnetite Nanoparticles. <i>Journal of Agricultural and Food Chemistry</i> , <b>2018</b> , 66, 5746-5755                               | 5.7  | 21 |
| 62 | Fouling resistant 2D boron nitride nanosheet IPES nanofiltration membranes. <i>Journal of Membrane Science</i> , <b>2018</b> , 563, 949-956                                   | 9.6  | 51 |
| 61 | Materials enabling nanofluidic flow enhancement. <i>MRS Bulletin</i> , <b>2017</b> , 42, 273-277  | 3.2  | 4  |
| 60 | 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 |
| 59 | Continuous Production of Cellulose Microbeads via Membrane Emulsification. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2017</b> , 5, 5931-5939                      | 8.3  | 39 |
| 58 | 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 |
| 57 | Kinetics of CO Hydrogenation to Hydrocarbons over Iron-Silica Catalysts. <i>ChemPhysChem</i> , <b>2017</b> , 18, 3211-3218  | 3.2  | 25 |

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|----|---|------|-----|
| 56 | 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  |
| 55 | 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  |
| 54 | 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 |
| 53 | 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  |
| 52 | 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  |
| 51 | 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  |
| 50 | 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   |
| 49 | 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  |
| 48 | 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  |
| 47 | 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  |
| 46 | 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  |
| 45 | Carbon nanotube membranes: From flow enhancement to permeability. <i>Journal of Membrane Science</i> , <b>2015</b> , 475, 266-272   | 9.6  | 80  |
| 44 | Towards Carbon-Neutral CO <sub>2</sub> Conversion to Hydrocarbons. <i>ChemSusChem</i> , <b>2015</b> , 8, 4064-72  | 8.3  | 42  |
| 43 | Water permeation in carbon nanotube membranes. <i>Current Opinion in Chemical Engineering</i> , <b>2014</b> , 4, 32-37  | 5.4  | 23  |
| 42 | 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   |
| 41 | Flow enhancement in nanotubes of different materials and lengths. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 014702  | 3.9  | 73  |
| 40 | 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  |
| 39 | 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  |

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|----|---|------|----|
| 38 | Controlled hydrothermal pore reduction in anodic alumina membranes. <i>Nanoscale</i> , <b>2014</b> , 6, 13952-7   | 7.7  | 3  |
| 37 | 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 |
| 36 | Modelling flow enhancement in nanochannels: Viscosity and slippage. <i>Applied Mathematics Letters</i> , <b>2013</b> , 26, 991-994  | 3.5  | 28 |
| 35 | 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 |
| 34 | 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 |
| 33 | 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 |
| 32 | 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 |
| 31 | 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 |
| 30 | 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 |
| 29 | 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 |
| 28 | One-step production of monolith-supported long carbon nanotube arrays. <i>Carbon</i> , <b>2013</b> , 51, 327-334  | 10.4 | 10 |
| 27 | 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  |
| 26 | 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 |
| 25 | Sustained frictional instabilities on nanodomed surfaces: stick-slip amplitude coefficient. <i>ACS Nano</i> , <b>2013</b> , 7, 10850-62   | 16.7 | 24 |
| 24 | Zinc oxide nanostructured films produced via anodization: a rational design approach. <i>RSC Advances</i> , <b>2013</b> , 3, 25323  | 3.7  | 27 |
| 23 | 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 |
| 22 | REMOVED: Explaining the Ultra-High Water Flow Rates Observed in Carbon Nanotube Membranes. <i>Procedia Engineering</i> , <b>2012</b> , 44, 479-481  |      |    |
| 21 | 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 |

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|----|--|-----|------|
| 20 | Water flow enhancement in hydrophilic nanochannels. <i>Nanoscale</i> , <b>2012</b> , 4, 2621-7   | 7.7 | 90   |
| 19 | 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   |
| 18 | Wetting of nanotubes. <i>Current Opinion in Colloid and Interface Science</i> , <b>2011</b> , 16, 259-265  | 7.6 | 18   |
| 17 | Amontonian frictional behaviour of nanostructured surfaces. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 9318-26   | 3.6 | 28   |
| 16 | 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 |
| 15 | 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    |
| 14 | Water transport through nanoporous materials: Porous silicon and single walled carbon nanotubes <b>2010</b> ,  |     | 1    |
| 13 | Smoothing of nanoscale roughness based on the Kelvin effect. <i>Nanotechnology</i> , <b>2008</b> , 19, 365702  | 3.4 | 5    |
| 12 | Review: static and dynamic behavior of liquids inside carbon nanotubes. <i>Microfluidics and Nanofluidics</i> , <b>2008</b> , 5, 289-305   | 2.8 | 211  |
| 11 | 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   |
| 10 | Induction and measurement of minute flow rates through nanopipes. <i>Physics of Fluids</i> , <b>2007</b> , 19, 013603  | 4.4 | 43   |
| 9  | 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    |
| 8  | Self-assembled Multi-walled Carbon Nanotube Coatings. <i>Materials Research Society Symposia Proceedings</i> , <b>2007</b> , 1057, 1   |     |      |
| 7  | Multifunctional carbon nanotubes with nanoparticles embedded in their walls. <i>Nanotechnology</i> , <b>2007</b> , 18, 155305  | 3.4 | 29   |
| 6  | Magnetically assembled carbon nanotube tipped pipettes. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 103108  | 3.4 | 59   |
| 5  | Imaging of liquid crystals confined in carbon nanopipes. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 043123   | 3.4 | 5    |
| 4  | 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  |
| 3  | 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   |

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|---|--|---|----|
| 2 | Oxidation behaviour of an aluminium nitride-titanium diboride ceramic composite. <i>Journal of the European Ceramic Society</i> , <b>2005</b> , 25, 1789-1796    | 6 | 11 |
| 1 | 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 |