

# Thomas Schiestel

## List of Publications by Year in descending order

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63

papers

3,739

citations

136950

32

h-index

123424

61

g-index

72

all docs

72

docs citations

72

times ranked

3617

citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Endocytosis of dextran and silan-coated magnetite nanoparticles and the effect of intracellular hyperthermia on human mammary carcinoma cells in vitro. <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 194, 185-196.                       | 2.3  | 485       |
| 2  | A Nonviral DNA Delivery System Based on Surface Modified Silica-Nanoparticles Can Efficiently Transfect Cells in Vitro. <i>Bioconjugate Chemistry</i> , 2000, 11, 926-932.   | 3.6  | 319       |
| 3  | Silica nanoparticles modified with aminosilanes as carriers for plasmid DNA. <i>International Journal of Pharmaceutics</i> , 2000, 196, 257-261.   | 5.2  | 261       |
| 4  | Hollow fibre perovskite membranes for oxygen separation. <i>Journal of Membrane Science</i> , 2005, 258, 1-4.  | 8.2  | 213       |
| 5  | Simultaneous Production of Hydrogen and Synthesis Gas by Combining Water Splitting with Partial Oxidation of Methane in a Hollow-fiber Membrane Reactor. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 9341-9344.                       | 13.8 | 204       |
| 6  | Perovskite Hollow-Fiber Membranes for the Production of Oxygen-Enriched Air. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 6906-6909.   | 13.8 | 157       |
| 7  | Host-guest supramolecular chemistry. 34. The incremental approach to noncovalent interactions: coulomb and van der Waals effects in organic ion pairs. <i>Journal of the American Chemical Society</i> , 1992, 114, 7698-7703.                         | 13.7 | 149       |
| 8  | Direct Decomposition of Nitrous Oxide to Nitrogen by In-situ Oxygen Removal with a Perovskite Membrane. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2983-2986.  | 13.8 | 130       |
| 9  | A Coupling Strategy to Produce Hydrogen and Ethylene in a Membrane Reactor. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5656-5660.  | 13.8 | 115       |
| 10 | Chemisorption of carbon dioxide in imidazolium based ionic liquids with carboxylic anions. <i>Chemical Engineering Journal</i> , 2012, 181-182, 152-158.   | 12.7 | 88        |
| 11 | Controlled Surface Functionalization of Silica Nanospheres by Covalent Conjugation Reactions and Preparation of High Density Streptavidin Nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2004, 4, 504-511.                          | 0.9  | 85        |
| 12 | Catalytic Membrane Reactors for Partial Oxidation Using Perovskite Hollow Fiber Membranes and for Partial Hydrogenation Using a Catalytic Membrane Contactor. <i>Industrial &amp; Engineering Chemistry Research</i> , 2007, 46, 2286-2294.            | 3.7  | 80        |
| 13 | Challenging fabrication of hollow ceramic fiber supported Cu <sub>3</sub> (BTC) <sub>2</sub> membrane for hydrogen separation. <i>Journal of Materials Chemistry</i> , 2012, 22, 10322.  | 6.7  | 75        |
| 14 | Gas solubilities in room temperature ionic liquids – Correlation between RTiL-molar mass and Henry's law constant. <i>Chemical Engineering Journal</i> , 2011, 172, 167-176.   | 12.7 | 73        |
| 15 | Partial oxidation of methane to syngas in a perovskite hollow fiber membrane reactor. <i>Catalysis Communications</i> , 2006, 7, 907-912.  | 3.3  | 67        |
| 16 | Sulfonated poly(ether ether ketone)-based silica nanocomposite membranes for direct ethanol fuel cells. <i>Journal of Membrane Science</i> , 2010, 346, 215-226.   | 8.2  | 63        |
| 17 | Oxidative Coupling of Methane in a BCFZ Perovskite Hollow Fiber Membrane Reactor. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 10230-10236.  | 3.7  | 61        |
| 18 | Influence of CO <sub>2</sub> on the oxygen permeation performance of perovskite-type Ba <sub>x</sub> C <sub>y</sub> F <sub>y</sub> Zr <sub>z</sub> O <sub>3-y+z</sub> hollow fiber membranes. <i>Journal of Membrane Science</i> , 2010, 364, 132-137. | 8.2  | 58        |

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|----|--|------|-----------|
| 19 | Hollow fiber membrane reactors for the oxidative activation of ethane. <i>Catalysis Today</i> , 2006, 118, 98-103.   | 4.4  | 57        |
| 20 | Oxygen permeation study of perovskite hollow fiber membranes. <i>Catalysis Today</i> , 2005, 104, 126-130.   | 4.4  | 56        |
| 21 | Oxygen selective ceramic hollow fiber membranes for partial oxidation of methane. <i>AIChE Journal</i> , 2009, 55, 2657-2664.  | 3.6  | 52        |
| 22 | Hydrogen Production by Water Dissociation in Surface-Modified BaCo <sub>x</sub> Fe <sub>y</sub> Zr <sub>1-x-y</sub> O <sub>3</sub> Hollow-Fiber Membrane Reactor with Improved Oxygen Permeation. <i>Chemistry - A European Journal</i> , 2010, 16, 7898-7903.   | 3.3  | 50        |
| 23 | Highly effective NO decomposition by in situ removal of inhibitor oxygen using an oxygen transporting membrane. <i>Chemical Communications</i> , 2009, , 6738.   | 4.1  | 48        |
| 24 | Evaluation of perovskites in hollow fibre and disk geometry in catalytic membrane reactors and in oxygen separators. <i>Catalysis Today</i> , 2006, 118, 128-135.  | 4.4  | 45        |
| 25 | Production of high-purity oxygen by perovskite hollow fiber membranes swept with steam. <i>Journal of Membrane Science</i> , 2006, 284, 5-8.   | 8.2  | 41        |
| 26 | Improved water dissociation and nitrous oxide decomposition by in situ oxygen removal in perovskite catalytic membrane reactor. <i>Catalysis Today</i> , 2010, 156, 187-190.   | 4.4  | 41        |
| 27 | Novel hollow fibre membrane reactor for the partial oxidation of methane. <i>Catalysis Today</i> , 2006, 118, 44-51.   | 4.4  | 39        |
| 28 | Effect of the feed and draw solution temperatures on PRO performance: Theoretical and experimental study. <i>Desalination</i> , 2015, 365, 182-195.  | 8.2  | 38        |
| 29 | Olefin Production by a Multistep Oxidative Dehydrogenation in a Perovskite Hollow-Fiber Membrane Reactor. <i>ChemCatChem</i> , 2009, 1, 401-405.   | 3.7  | 37        |
| 30 | Experimental and modeling study of the O <sub>2</sub> -enrichment by perovskite fibers. <i>AIChE Journal</i> , 2006, 52, 3118-3125.  | 3.6  | 34        |
| 31 | Mixed oxygen ion and electron conducting hollow fiber membranes for oxygen separation. <i>Solid State Ionics</i> , 2006, 177, 2255-2259.   | 2.7  | 34        |
| 32 | A novel plasma-assisted hollow fiber membrane concept for efficiently separating oxygen from CO in a CO <sub>2</sub> plasma. <i>Chemical Engineering Journal</i> , 2020, 392, 123699.  | 12.7 | 33        |
| 33 | High-Purity Oxygen Production from Air Using Perovskite Hollow Fiber Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 9377-9384.  | 3.7  | 32        |
| 34 | Dihydrogenimidazole modified silica-sulfonated poly(ether ether ketone) hybrid materials as electrolyte membranes for direct ethanol fuel cells. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 727-735. | 3.5  | 32        |
| 35 | Tumor Necrosis Factor (TNF)-Functionalized Nanostructured Particles for the Stimulation of Membrane TNF-Specific Cell Responses. <i>Bioconjugate Chemistry</i> , 2005, 16, 1459-1467.  | 3.6  | 29        |
| 36 | Perovskite hollow fibre membranes in the partial oxidation of methane to synthesis gas in a membrane reactor. <i>Desalination</i> , 2006, 199, 415-417.  | 8.2  | 22        |

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|----|--|-----|-----------|
| 37 | Removal of micropollutants from water by nanocomposite membrane adsorbers. <i>Separation and Purification Technology</i> , 2014, 131, 60-68.   | 7.9 | 21        |
| 38 | Effect of the operating temperature on hydrodynamics and membrane parameters in pressure retarded osmosis. <i>Desalination and Water Treatment</i> , 2016, 57, 10477-10489.  | 1.0 | 20        |
| 39 | Oxidative dehydrogenation of propane in a perovskite membrane reactor with multi-step oxygen insertion. <i>AIChE Journal</i> , 2010, 56, 2390-2396.  | 3.6 | 18        |
| 40 | Nanostructured Composite Adsorber Membranes for the Reduction of Trace Substances in Water: The Example of Bisphenol A. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 14011-14018.                  | 3.7 | 16        |
| 41 | Impact of Temperature on Power Recovery in Osmotic Power Production by Pressure Retarded Osmosis. <i>Energy Procedia</i> , 2014, 50, 960-969.  | 1.8 | 13        |
| 42 | Reconstitution of the membrane protein OmpF into biomimetic block copolymer-phospholipid hybrid membranes. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 881-892.  | 2.8 | 12        |
| 43 | Permeation improvement of LCCF hollow fiber membranes by spinning and sintering optimization. <i>Separation and Purification Technology</i> , 2021, 259, 118023.   | 7.9 | 12        |
| 44 | Poly(ether sulfone) hollow fiber membranes prepared via nonsolvent-induced phase separation using the green solvent Agnique® AMD 3ÅL. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50935.                      | 2.6 | 12        |
| 45 | Palladium coated ceramic hollow fibre membranes for hydrogen separation. <i>Desalination</i> , 2006, 200, 95-96.   | 8.2 | 11        |
| 46 | Behavior of sulfonated poly(ether ether ketone) in ethanol-water systems. <i>Journal of Applied Polymer Science</i> , 2009, 111, 2998-3009.  | 2.6 | 11        |
| 47 | Mixed-Matrix Membrane Adsorbers for the Simultaneous Removal of Different Pharmaceutical Micropollutants from Water. <i>ACS Applied Polymer Materials</i> , 2022, 4, 1705-1716.  | 4.4 | 10        |
| 48 | Influence of surface properties on the dip coating behavior of hollow fiber membranes. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46163.   | 2.6 | 9         |
| 49 | Development of an MHC-class I peptide selection assay combining nanoparticle technology and matrix-assisted laser desorption/ionisation mass spectrometry. <i>Journal of Immunological Methods</i> , 2003, 283, 205-213. | 1.4 | 8         |
| 50 | Proton conducting composite membranes with low ethanol crossover for DEFC. <i>Desalination</i> , 2006, 200, 662-663.   | 8.2 | 8         |
| 51 | Energy recovery using salinity differences in a multi-effect distillation system. <i>Desalination and Water Treatment</i> , 0, , 1-8.  | 1.0 | 8         |
| 52 | Evaluation of the Potential of Osmotic Energy as Renewable Energy Source in Realistic Conditions. <i>Energy Procedia</i> , 2013, 42, 261-269.  | 1.8 | 7         |
| 53 | Acid catalyzed crosslinking of polyvinyl alcohol for humidifier membranes. <i>Journal of Applied Polymer Science</i> , 0, , 51606.   | 2.6 | 7         |
| 54 | Dense perovskite hollow fibre membranes. <i>Desalination</i> , 2006, 199, 355-356.   | 8.2 | 6         |

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|----|---|-----|-----------|
| 55 | Oxidative Dehydrierung niederer Alkane in einem selektiven Membranreaktor mit gestufter Sauerstoffzugabe und In-situ-Wasserstoffoxidation. <i>Chemie-Ingenieur-Technik</i> , 2009, 81, 1591-1597.               | 0.8 | 4         |
| 56 | SPEEK based composite membranes for direct ethanol fuel cell applications. <i>Desalination</i> , 2010, 250, 1051-1052.  | 8.2 | 4         |
| 57 | Thermo-responsive mixed-matrix hollow fiber membranes. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50787.  | 2.6 | 4         |
| 58 | Up-scaling transport in porous polymer membranes using asymptotic homogenization. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 30, 266-289.                                | 2.8 | 3         |
| 59 | Can inorganic membranes compete with organic ones? Perovskite hollow fibres for O <sub>2</sub> -separation and supported H <sub>2</sub> -selective zeolite membranes. <i>Desalination</i> , 2006, 199, 365-367. | 8.2 | 2         |
| 60 | Surface-modified metal membrane for membrane contactor application. <i>Desalination</i> , 2006, 200, 449-450.   | 8.2 | 2         |
| 61 | Mixed-Matrix Membrane Adsorbers for the Selective Binding of Metal Ions from Diluted Solutions. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 437-446.  | 0.8 | 2         |
| 62 | Simple method for binding pollutants in water. <i>Membrane Technology</i> , 2015, 2015, 7.  | 0.1 | 1         |
| 63 | Development of Direct Ethanol Fuel Cell Membrane Electrode Assemblies Using Sulfonated Polyetheretherketone Mixed-Matrix Membranes. <i>ECS Transactions</i> , 2009, 25, 1685-1695.                              | 0.5 | 0         |