

Colin J Webb

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.

67

papers

3,110

citations

26

h-index

55

g-index

70

ext. papers

3,827

ext. citations

5.9

avg, IF

5.69

L-index

| # | Paper | IF | Citations |
|----|--|-----|-----------|
| 67 | A quantitative review of slurries for hydrogen storage (blue hydrogen, and metal and chemical hydrides in carrier liquids). <i>Journal of Alloys and Compounds</i> , 2022 , 906, 164235 | 5.7 | |
| 66 | Hydrogen adsorption properties of carbide-derived carbons at ambient temperature and high pressure. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15761-15772 | 6.7 | 3 |
| 65 | Metal-hydride hydrogen compressors for laboratory use. <i>JPhys Energy</i> , 2020 , 2, 034004 | 4.9 | 3 |
| 64 | Materials for hydrogen-based energy storage (past, recent progress and future outlook). <i>Journal of Alloys and Compounds</i> , 2020 , 827, 153548 | 5.7 | 264 |
| 63 | Electron and phonon band structures of palladium and palladium hydride: A review. <i>Progress in Solid State Chemistry</i> , 2020 , 60, 100285 | 8 | 5 |
| 62 | Hydrogen uptake properties of a nanoporous PIM-1/polyaniline nanocomposite polymer. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 22436-22443 | 13 | 2 |
| 61 | Magnesium based materials for hydrogen based energy storage: Past, present and future. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7809-7859 | 6.7 | 264 |
| 60 | Improving the Gas-Separation Properties of PVAc-Zeolite 4A Mixed-Matrix Membranes through Nano-Sizing and Silanation of the Zeolite. <i>ChemPhysChem</i> , 2019 , 20, 1590-1606 | 3.2 | 13 |
| 59 | Postsynthetic Modification of a Network Polymer of Intrinsic Microporosity and Its Hydrogen Adsorption Properties. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 6998-7009 | 3.8 | 4 |
| 58 | Concepts for improving hydrogen storage in nanoporous materials. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7768-7779 | 6.7 | 81 |
| 57 | Non-Fluorinated Polymer Composite Proton Exchange Membranes for Fuel Cell Applications - A Review. <i>ChemPhysChem</i> , 2019 , 20, 2016-2053 | 3.2 | 31 |
| 56 | The Effect of Thermal Treatment on the Hydrogen-Storage Properties of PIM-1. <i>ChemPhysChem</i> , 2019 , 20, 1613-1623 | 3.2 | 4 |
| 55 | Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7780-7808 | 6.7 | 273 |
| 54 | The effect of ball-milling gas environment on the sorption kinetics of MgH ₂ with/without additives for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 2976-2980 | 6.7 | 31 |
| 53 | Experimental and computational modelling study of Ni substitution for Fe in Zr ₃ Fe and its hydride. <i>Journal of Alloys and Compounds</i> , 2019 , 781, 131-139 | 5.7 | 1 |
| 52 | One-dimensional metal-hydride tank model and simulation in Matlab/Simulink. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 5048-5067 | 6.7 | 18 |
| 51 | Simulation of large photovoltaic arrays. <i>Solar Energy</i> , 2018 , 161, 163-179 | 6.8 | 7 |

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| 50 | Kinetic enhancement of the sorption properties of MgH ₂ with the additive titanium isopropoxide. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 5227-5234 | 6.7 | 15 |
| 49 | Experimental and theoretical study of compositional inhomogeneities in LaNi ₅ D _x owing to temperature gradients and pressure hysteresis, investigated using spatially resolved in-situ neutron diffraction. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 6793-6800 | 6.7 | 9 |
| 48 | Pitfalls in the characterisation of the hydrogen sorption properties of materials. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 29320-29343 | 6.7 | 28 |
| 47 | A sieverts apparatus for measuring high-pressure hydrogen isotherms on porous materials. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 20111-20119 | 6.7 | 9 |
| 46 | Modelling and simulation of an alkaline electrolyser cell. <i>Energy</i> , 2017 , 138, 316-331 | 7.9 | 29 |
| 45 | Hydrogen storage in carbon nanostructures via spillover. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 19098-19113 | 6.7 | 74 |
| 44 | PEM fuel cell model and simulation in MatlabSimulink based on physical parameters. <i>Energy</i> , 2016 , 116, 1131-1144 | 7.9 | 88 |
| 43 | Review of hydrogen storage in AB ₃ alloys targeting stationary fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 3485-3507 | 6.7 | 48 |
| 42 | Review of magnesium hydride-based materials: development and optimisation. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1 | 2.6 | 212 |
| 41 | An improved model for metal-hydrogen storage tanks [Part 1: Model development. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 3537-3550 | 6.7 | 22 |
| 40 | Mg-based compounds for hydrogen and energy storage. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1 | 2.6 | 121 |
| 39 | An improved model for metal-hydrogen storage tanks [Part 2: Model results. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 3919-3927 | 6.7 | 13 |
| 38 | A review of mathematical modelling of metal-hydride systems for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 3470-3484 | 6.7 | 82 |
| 37 | Hydrogen-modified superconductors: A review. <i>Progress in Solid State Chemistry</i> , 2016 , 44, 20-34 | 8 | 13 |
| 36 | Outlook and challenges for hydrogen storage in nanoporous materials. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1 | 2.6 | 92 |
| 35 | Review of polymers of intrinsic microporosity for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 16944-16965 | 6.7 | 91 |
| 34 | The effect of C ₆₀ additive on magnesium hydride for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 10508-10515 | 6.7 | 22 |
| 33 | Modelling and simulation of a proton exchange membrane (PEM) electrolyser cell. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 13243-13257 | 6.7 | 101 |

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| 32 | A review of catalyst-enhanced magnesium hydride as a hydrogen storage material. <i>Journal of Physics and Chemistry of Solids</i> , 2015 , 84, 96-106 | 3.9 | 187 |
| 31 | In-situ neutron powder diffraction study of Mg ₂ Ni alloys during hydrogen cycling. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 8106-8109 | 6.7 | 9 |
| 30 | LaNi ₅ -Assisted Hydrogenation of MgNi ₂ in the Hybrid Structures of La _{1.09} Mg _{1.91} Ni _{9D9.5} and La _{0.91} Mg _{2.09} Ni _{9D9.4} . <i>Energies</i> , 2015 , 8, 3198-3211 | 3.1 | 10 |
| 29 | Mg ₂ Si Nanoparticle Synthesis for High Pressure Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 1240-1247 | 3.8 | 25 |
| 28 | Analysis of the uncertainties in gas uptake measurements using the Sieverts method. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 366-375 | 6.7 | 25 |
| 27 | Hydrogen adsorption characteristics of magnesium combustion derived graphene at 77 and 293 K. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 6783-6788 | 6.7 | 15 |
| 26 | Analysis of uncertainties in gas uptake measurements using the gravimetric method. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7158-7164 | 6.7 | 12 |
| 25 | The effect of inaccurate volume calibrations on hydrogen uptake measured by the Sieverts method. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 2168-2174 | 6.7 | 16 |
| 24 | Misconceptions in the application of the Sieverts technique. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 14281-14283 | 6.7 | 4 |
| 23 | Asymmetric reversal in aged high concentration CuMn alloy. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 086003 | 1.8 | 8 |
| 22 | The synthesis of nanoscopic Ti based alloys and their effects on the MgH ₂ system compared with the MgH ₂ -Ti _{0.01} Nb ₂ O ₅ benchmark. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 4227-4237 | 6.7 | 64 |
| 21 | In-Situ X-ray Diffraction Study of Mg(BH ₄) ₂ Decomposition. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 15231-15240 | 3.8 | 75 |
| 20 | Hydrogen in La ₂ MgNi _{9D13} : the role of magnesium. <i>Inorganic Chemistry</i> , 2012 , 51, 4231-8 | 5.1 | 50 |
| 19 | In-situ diffraction techniques for studying hydrogen storage materials under high hydrogen pressure. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 10182-10195 | 6.7 | 15 |
| 18 | Hydrogen absorption kinetics and structural features of NaAlH ₄ enhanced with transition-metal and Ti-based nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 15175-15186 | 6.7 | 17 |
| 17 | Magnesium Hydride Formation within Carbon Aerogel. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 1757-1766 | 3.8 | 49 |
| 16 | High pressure in situ diffraction studies of metal-hydrogen systems. <i>Journal of Alloys and Compounds</i> , 2011 , 509, S817-S822 | 5.7 | 11 |
| 15 | Kinetic limitations in the Mg-Si system. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10779-10786 | 6.7 | 15 |

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| 14 | Nanoscale cobalt doped carbon aerogel: microstructure and isosteric heat of hydrogen adsorption. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10855-10860 | 6.7 | 17 |
| 13 | Nanoscale Al _{1-x} Ce _x phases in the NaH + Al + 0.02CeCl ₃ system. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8403-8411 | 6.7 | 19 |
| 12 | In Situ Neutron Diffraction Study of the Deuteration of Isotopic Mg ¹¹ B ₂ . <i>Journal of Physical Chemistry C</i> , 2011 , 115, 22669-22679 | 3.8 | 31 |
| 11 | Hydrogen storage for off-grid power supply. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 654-663 | 6.7 | 102 |
| 10 | Nanostructured Metal Hydrides for Hydrogen Storage Studied by In Situ Synchrotron and Neutron Diffraction. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1262, 1 | | 7 |
| 9 | Versatile in situ powder X-ray diffraction cells for solid-gas investigations. <i>Journal of Applied Crystallography</i> , 2010 , 43, 1456-1463 | 3.8 | 141 |
| 8 | Electron-laser stepwise excitation coincidence experiment on the 6(1)P ₁ state of mercury. <i>Physical Review Letters</i> , 1989 , 62, 411-414 | 7.4 | 18 |
| 7 | A comment on the controversy over results obtained from coincidence and superelastic experiments on e ⁻ -Na collisions at 22.1 to or from 20.0 eV. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1989 , 22, L527-L531 | 1.3 | 11 |
| 6 | A surface impedance mapping technique based on radiation from discrete lightning strokes. <i>Geoscientific Exploration</i> , 1988 , 25, 163-172 | | 3 |
| 5 | Spectroscopic applications of stepwise electron and laser excitation techniques to transitions of mercury. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1985 , 18, 1701-1709 | | 6 |
| 4 | A stepwise electron and laser excitation study of the 6 ³ P ₂ metastable state of atomic mercury. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1985 , 18, L259-L264 | | 9 |
| 3 | The theory of stepwise electron and laser excitation of atoms. II. Strong optical excitation case. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1984 , 17, 2577-2589 | | 8 |
| 2 | The theory of stepwise electron and laser excitation of atoms. I. Weak optical excitation case. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1984 , 17, 1675-1689 | | 10 |
| 1 | Extracting adsorbate information from manometric uptake measurements of hydrogen at high pressure and ambient temperature. <i>Adsorption</i> , 1984 , 10, 1-10 | 2.6 | 0 |