

# Simon K Beaumont

## List of Publications by Year in descending order

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Version: 2024-02-01

45  
papers

2,098  
citations

257450

24  
h-index

223800

46  
g-index

52  
all docs

52  
docs citations

52  
times ranked

3403  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Size-Controlled Model Co Nanoparticle Catalysts for CO <sub>2</sub> Hydrogenation: Synthesis, Characterization, and Catalytic Reactions. <i>Nano Letters</i> , 2012, 12, 3091-3096.   | 9.1  | 175       |
| 2  | Sonogashira Coupling on an Extended Gold Surface in Vacuo: Reaction of Phenylacetylene with Iodobenzene on Au(111). <i>Journal of the American Chemical Society</i> , 2010, 132, 8081-8086.   | 13.7 | 165       |
| 3  | Identity of the Active Site in Gold Nanoparticle-Catalyzed Sonogashira Coupling of Phenylacetylene and Iodobenzene. <i>Journal of the American Chemical Society</i> , 2010, 132, 12246-12248.   | 13.7 | 123       |
| 4  | Hydrogenation of benzene and toluene over size controlled Pt/SBA-15 catalysts: Elucidation of the Pt particle size effect on reaction kinetics. <i>Journal of Catalysis</i> , 2012, 292, 64-72.   | 6.2  | 119       |
| 5  | Sonogashira Coupling Catalyzed by Gold Nanoparticles: Does Homogeneous or Heterogeneous Catalysis Dominate?. <i>ChemCatChem</i> , 2010, 2, 1444-1449.   | 3.7  | 107       |
| 6  | CO <sub>2</sub> Hydrogenation Studies on Co and CoPt Bimetallic Nanoparticles Under Reaction Conditions Using TEM, XPS and NEXAFS. <i>Topics in Catalysis</i> , 2011, 54, 778-785.  | 2.8  | 103       |
| 7  | Spatially orthogonal chemical functionalization of a hierarchical pore network for catalytic cascade reactions. <i>Nature Materials</i> , 2016, 15, 178-182.  | 27.5 | 101       |
| 8  | A Nanoscale Demonstration of Hydrogen Atom Spillover and Surface Diffusion Across Silica Using the Kinetics of CO <sub>2</sub> Methanation Catalyzed on Spatially Separate Pt and Co Nanoparticles.. <i>Nano Letters</i> , 2014, 14, 4792-4796.                               | 9.1  | 100       |
| 9  | Combining in Situ NEXAFS Spectroscopy and CO <sub>2</sub> Methanation Kinetics To Study Pt and Co Nanoparticle Catalysts Reveals Key Insights into the Role of Platinum in Promoted Cobalt Catalysis. <i>Journal of the American Chemical Society</i> , 2014, 136, 9898-9901. | 13.7 | 94        |
| 10 | Aspects of Heterogeneous Enantioselective Catalysis by Metals. <i>Langmuir</i> , 2011, 27, 9687-9695.   | 3.5  | 76        |
| 11 | A spatially orthogonal hierarchically porous acid-base catalyst for cascade and antagonistic reactions. <i>Nature Catalysis</i> , 2020, 3, 921-931.   | 34.4 | 75        |
| 12 | Catalytic Hydrogenation and Hydrodeoxygenation of Furfural over Pt(111): A Model System for the Rational Design and Operation of Practical Biomass Conversion Catalysts. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8490-8497.                                       | 3.1  | 66        |
| 13 | Sonogashira Cross-Coupling and Homocoupling on a Silver Surface: Chlorobenzene and Phenylacetylene on Ag(100). <i>Journal of the American Chemical Society</i> , 2015, 137, 940-947.  | 13.7 | 50        |
| 14 | Atom efficient PtCu bimetallic catalysts and ultra dilute alloys for the selective hydrogenation of furfural. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119737.  | 20.2 | 49        |
| 15 | Recent developments in the application of nanomaterials to understanding molecular level processes in cobalt catalysed Fischer-Tropsch synthesis. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 5034-5043.   | 2.8  | 48        |
| 16 | Determination of Molecular Surface Structure, Composition, and Dynamics under Reaction Conditions at High Pressures and at the Solid-Liquid Interface. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 10116-10129.  | 13.8 | 45        |
| 17 | Heterogeneously catalyzing C-C coupling reactions with precious metal nanoparticles. <i>Journal of Chemical Technology and Biotechnology</i> , 2012, 87, 595-600.   | 3.2  | 44        |
| 18 | In situ study of oxidation states and structure of 4nm CoPt bimetallic nanoparticles during CO oxidation using X-ray spectroscopies in comparison with reaction turnover frequency. <i>Catalysis Today</i> , 2012, 182, 54-59.  | 4.4  | 42        |

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|----|---|------|-----------|
| 19 | Heterogeneous Photochemistry Relevant to the Troposphere: H <sub>2</sub> O <sub>2</sub> Production during the Photochemical Reduction of NO <sub>2</sub> to HONO on UV-Illuminated TiO <sub>2</sub> Surfaces. <i>ChemPhysChem</i> , 2009, 10, 331-333.  | 2.1  | 38        |
| 20 | Heterogeneously Catalyzed Asymmetric Hydrogenation of C=C Bonds Directed by Surface-Tethered Chiral Modifiers. <i>Journal of the American Chemical Society</i> , 2009, 131, 14584-14589.  | 13.7 | 38        |
| 21 | Exploring surface science and restructuring in reactive atmospheres of colloiddally prepared bimetallic CuNi and CuCo nanoparticles on SiO <sub>2</sub> in situ using ambient pressure X-ray photoelectron spectroscopy. <i>Faraday Discussions</i> , 2013, 162, 31.  | 3.2  | 36        |
| 22 | Monometallic and bimetallic catalysts based on Pd, Cu and Ni for hydrogen transfer deoxygenation of a prototypical fatty acid to diesel range hydrocarbons. <i>Catalysis Today</i> , 2020, 355, 882-892.  | 4.4  | 35        |
| 23 | Surface Composition Changes of Redox Stabilized Bimetallic CoCu Nanoparticles Supported on Silica under H <sub>2</sub> and O <sub>2</sub> Atmospheres and During Reaction between CO <sub>2</sub> and H <sub>2</sub> : In Situ X-ray Spectroscopic Characterization. <i>Journal of Physical Chemistry C</i> , 2013, 117, 21803-21809. | 3.1  | 31        |
| 24 | Shape-persistent porous organic cage supported palladium nanoparticles as heterogeneous catalytic materials. <i>Nanoscale</i> , 2019, 11, 14929-14936.  | 5.6  | 29        |
| 25 | Synthesis, Characterization, and Surface Tethering of Sulfide-Functionalized Ti <sub>16</sub> -oxo-alkoxy Cages. <i>Chemistry of Materials</i> , 2010, 22, 5174-5178.   | 6.7  | 24        |
| 26 | Comprehensive Experimental and Theoretical Study of the CO + NO Reaction Catalyzed by Au/Ni Nanoparticles. <i>ACS Catalysis</i> , 2019, 9, 4919-4929.   | 11.2 | 22        |
| 27 | X-ray spectroscopic and scattering methods applied to the characterisation of cobalt-based Fischer-Tropsch synthesis catalysts. <i>Catalysis Science and Technology</i> , 2016, 6, 5773-5791.   | 4.1  | 21        |
| 28 | Palladium-poly(ionic liquid) membranes for permselective sonochemical flow catalysis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 545, 78-85.   | 4.7  | 20        |
| 29 | Reforming of C <sub>6</sub> Hydrocarbons Over Model Pt Nanoparticle Catalysts. <i>Topics in Catalysis</i> , 2012, 55, 723-730.  | 2.8  | 19        |
| 30 | Catalysis of the Oxygen Evolution Reaction by 4-nm Cobalt Nanoparticles. <i>Topics in Catalysis</i> , 2018, 61, 977-985.  | 2.8  | 19        |
| 31 | Nickel-Catalysed Vapour-Phase Hydrogenation of Furfural, Insights into Reactivity and Deactivation. <i>Topics in Catalysis</i> , 2020, 63, 1446-1462.   | 2.8  | 18        |
| 32 | Influence of Adsorption Geometry in the Heterogeneous Enantioselective Catalytic Hydrogenation of a Prototypical Enone. <i>Journal of Physical Chemistry C</i> , 2010, 114, 15075-15077.  | 3.1  | 17        |
| 33 | Selective oxidation of cyclohexene through gold functionalized silica monolith microreactors. <i>Surface Science</i> , 2016, 646, 179-185.  | 1.9  | 17        |
| 34 | Soft XAS as an <i>in situ</i> technique for the study of heterogeneous catalysts. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 18747-18756.   | 2.8  | 16        |
| 35 | Smart water channelling through dual wettability by leaves of the bamboo <i>Phyllostachys aurea</i> . <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 506, 344-355.   | 4.7  | 15        |
| 36 | Recyclable palladium catalyst cloths for carbon-carbon coupling reactions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 520, 788-795.  | 4.7  | 15        |

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|----|---|------|-----------|
| 37 | Magnetic recyclable microcomposite silica-steel core with TiO <sub>2</sub> nanocomposite shell photocatalysts for sustainable water purification. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 523, 27-37.                               | 4.7  | 15        |
| 38 | Catalytic applications of layered double hydroxides in biomass valorisation. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2020, 22, 29-38.   | 5.9  | 15        |
| 39 | Evidence for a Localized Source of the Argon in the Lunar Exosphere. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2163-2181.  | 3.6  | 14        |
| 40 | Capture and Release Recyclable Dimethylaminomethyl-Calixarene Functional Cloths for Point-of-Use Removal of Highly Toxic Chromium Water Pollutants. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 52136-52145.  | 8.0  | 9         |
| 41 | High-Ionic-Strength Wastewater Treatment via Catalytic Wet Oxidation over a MnCeO <sub>x</sub> Catalyst. <i>ACS Catalysis</i> , 2022, 12, 7598-7608.  | 11.2 | 9         |
| 42 | Critical Role of Oxygen in Silver-Catalyzed Glaser-Hay Coupling on Ag(100) under Vacuum and in Solution on Ag Particles. <i>ACS Catalysis</i> , 2017, 7, 3113-3120.   | 11.2 | 8         |
| 43 | Conquering Catalyst Complexity: Nanoparticle Synthesis and Instrument Development for Molecular and Atomistic Characterisation Under In Situ Conditions. <i>Topics in Catalysis</i> , 2015, 58, 560-572.  | 2.8  | 4         |
| 44 | Multi-Dimensional Multi-Functional Catalytic Architecture: A Selectively Functionalized Three-Dimensional Hierarchically Ordered Macro/Mesoporous Network for Cascade Reactions Analyzed by Electron Tomography. <i>Microscopy and Microanalysis</i> , 2017, 23, 2042-2043. | 0.4  | 3         |
| 45 | Effect of concentrated NaCl on catalytic wet oxidation (CWO) of short chain carboxylic acids. <i>Catalysis Communications</i> , 2022, 162, 106395.  | 3.3  | 1         |