Jonathan C Hanson

List of Publications by Year
in descending order

54 papers	3,307 citations	117625 34 h-index	168389 53 g-index
56 all docs	56 docs citations	56 times ranked	4678 citing authors

#	Article	IF	Citations
1	In Situ Studies of the Active Sites for the Water Gas Shift Reaction over Cuâˆ’CeO2Catalysts:Â Complex Interaction between Metallic Copper and Oxygen Vacancies of Ceria. Journal of Physical Chemistry B, 2006, 110, 428-434.	2.6	415
2	Reduction of CuO in H2: In Situ Time-Resolved XRD Studies. Catalysis Letters, 2003, 85, 247-254.	2.6	228
3	Properties of CeO2and Ce1-xZrxO2Nanoparticles:Â X-ray Absorption Near-Edge Spectroscopy, Density Functional, and Time-Resolved X-ray Diffraction Studies. Journal of Physical Chemistry B, 2003, 107, 3535-3543.	2.6	199
4	Combined MAS NMR and X-ray Powder Diffraction Structural Characterization of Hydrofluorocarbon-134 Adsorbed on Zeolite NaY:Â Observation of Cation Migration and Strong Sorbateâˆ’Cation Interactions. Journal of the American Chemical Society, 1997, 119, 1981-1989.	13.7	153
5	Unusual Physical and Chemical Properties of Ni in Ce_{1â^’<i>x</i>}Ni_{<i>x</i>}O_{2â^’<i>y</i>} Oxides: Structural Characterization and Catalytic Activity for the Water Gas Shift Reaction. Journal of Physical Chemistry C, 2010, 114, 12689-12697.	3.1	151
6	Phases in Ceria-Zirconia Binary Oxide (1-x)CeO2-xZrO2 Nanoparticles: The Effect of Particle Size. Journal of the American Ceramic Society, 2006, 89, 1028-1036.	3.8	148
7	Achieving Atomic Dispersion of Highly Loaded Transition Metals in Smallâ€Pore Zeolite SSZâ€13: Highâ€Capacity and Highâ€Efficiency Lowâ€Temperature CO and Passive NO_{<i>x</i>} Adsorbers. Angewandte Chemie - International Edition, 2018, 57, 16672-16677.	13.8	129
8	Interaction of SO2 with CeO2 and Cu/CeO2 catalysts: photoemission, XANES and TPD studies. Catalysis Letters, 1999, 62, 113-119.	2.6	123
9	Reaction of H2and H2S with CoMoO4and NiMoO4:Â TPR, XANES, Time-Resolved XRD, and Molecular-Orbital Studies. Journal of Physical Chemistry B, 1999, 103, 770-781.	2.6	110
10	Neutron and temperature-resolved synchrotron X-ray powder diffraction study of akaganÃ©ite. American Mineralogist, 2003, 88, 782-788.	1.9	105
11	Biologically Induced Reduction in Symmetry: A Study of Crystal Texture of Calcitic Sponge Spicules. Chemistry - A European Journal, 1995, 1, 414-422.	3.3	95
12	Time-resolved structural analysis of K- and Ba-exchange reactions with synthetic Na-birnessite using synchrotron X-ray diffraction. American Mineralogist, 2007, 92, 380-387.	1.9	80
13	Unraveling the Active Site in Copperâˆ’Ceria Systems for the Waterâˆ’Gas Shift Reaction: In Situ Characterization of an Inverse Powder CeO_{2â^’<i>x</i>}/CuOâˆ’Cu Catalyst. Journal of Physical Chemistry C, 2010, 114, 3580-3587.	3.1	71
14	In Situ XRD Studies of ZnO/GaN Mixtures at High Pressure and High Temperature: Synthesis of Zn-Rich (Ga_{1â^’<i>x</i>}Zn_{<i>x</i>})(N_{1â^’<i>x</i>}O_{<i>x</i>}) Photocatalysts. Journal of Physical Chemistry C, 2010, 114, 1809-1814.	3.1	71
15	Synchrotron X-ray diffraction study of the structure and dehydration behavior of todorokite. American Mineralogist, 2003, 88, 142-150.	1.9	70
16	Rietveld refinement of a triclinic structure for synthetic Na-birnessite using synchrotron powder diffraction data. Powder Diffraction, 2002, 17, 218-221.	0.2	64
17	Preparation of (Ga_{1â^’<i>x</i>}Zn_{<i>x</i>})(N_{1â^’<i>x</i>}O_{<i>x</i>}) Photocatalysts from the Reaction of NH₃ with Ga₂O₃/ZnO and ZnGa₂O₄: In Situ Time-Resolved XRD and XAFS Studies. Journal of Physical Chemistry C, 2009, 113, 2650-2659.	3.1	63
18	Synthesis and Redox Behavior of Nanocrystalline Hausmannite (Mn₃O₄). Chemistry of Materials, 2007, 19, 5609-5616.	6.7	55

#	ARTICLE	IF	CITATIONS
19	Morphological and Structural Changes during the Reduction and Reoxidation of CuO/CeO₂and Ce_{1â€“<i>x</i>}Cu_{<i>x</i>}O₂Nanocatalysts:<i>In Situ</i>Studies with Environmental TEM, XRD, and XAS. Journal of Physical Chemistry C, 2011, 115, 13851-13859.	3.1	55
20	Studies on the Behavior of Mixed-Metal Oxides:Â Structural, Electronic, and Chemical Properties of Î²-FeMoO4. Journal of Physical Chemistry B, 2000, 104, 8145-8152.	2.6	49
21	Preparation and Characterization of a New 3-Dimensional Zirconium Hydrogen Phosphate, Ï„-Zr(HPO4)2. Determination of the Complete Crystal Structure Combining Synchrotron X-ray Single-Crystal Diffraction and Neutron Powder Diffraction. Inorganic Chemistry, 1998, 37, 876-881.	4.0	47
22	New Insight into Cation Relocations within the Pores of Zeolite Rho:â€‰ In Situ Synchrotron X-Ray and Neutron Powder Diffraction Studies of Pb- and Cd-Exchanged Rho. Journal of Physical Chemistry B, 2001, 105, 7188-7199.	2.6	45
23	Reduction of CoMoO4 and NiMoO4: in situ Time-Resolved XRD Studies. Catalysis Letters, 2002, 82, 103-109.	2.6	44
24	An N-heterocyclic carbene as a bidentate hemilabile ligand: a synchrotron X-ray diffraction and density functional theory studyElectronic supplementary information (ESI) available: experimental details and characterization data; table of results for hydrogenation of 3-pentanone; Gaussian 98 summary for the W and Mo models; ORTEP plot of 1W and crystal data. See http://www.rsc.org/suppdata/cc/b3/b303762b/. Chemical Communications, 2003, , 1670.	4.1	41
25	Structure of Microporous QUI-MnGS-1 and in Situ Studies of Its Formation Using Time-Resolved Synchrotron X-ray Powder Diffraction. Chemistry of Materials, 1998, 10, 1453-1458.	6.7	40
26	Characterization of the Fe-Doped Mixed-Valent Tunnel Structure Manganese Oxide KOMS-2. Journal of Physical Chemistry C, 2011, 115, 21610-21619.	3.1	38
27	Sequential transformations in assemblies based on octamolybdate clusters and 1,2-bis(4-pyridyl)ethane. New Journal of Chemistry, 2007, 31, 33-38.	2.8	37
28	Ceria-based Catalysts for the Production of H2 Through the Water-gas-shift Reaction: Time-resolved XRD and XAFS Studies. Topics in Catalysis, 2008, 49, 81-88.	2.8	37
29	Phase evolution of yttrium aluminium garnet (YAG) in a citrateâ€“nitrate gel combustion process. Journal of Materials Chemistry, 2004, 14, 1288-1292.	6.7	36
30	Cation Movements during Dehydration and NO₂ Desorption in a Baâ€“Y,FAU Zeolite: An in Situ Time-Resolved X-ray Diffraction Study. Journal of Physical Chemistry C, 2013, 117, 3915-3922.	3.1	36
31	Water-Induced Morphology Changes in BaO/Î³-Al2O3NOxStorage Materials:â€‰ an FTIR, TPD, and Time-Resolved Synchrotron XRD Study. Journal of Physical Chemistry C, 2007, 111, 4678-4687.	3.1	35
32	Novel manganese-promoted inverse CeO2/CuO catalyst: In situ characterization and activity for the water-gas shift reaction. Catalysis Today, 2020, 339, 24-31.	4.4	35
33	Understanding negative thermal expansion and â€˜trap doorâ€™ cation relocations in zeolite rho. Chemical Communications, 2000, , 2221-2222.	4.1	34
34	Achieving Atomic Dispersion of Highly Loaded Transition Metals in Smallâ€Pore Zeolite SSZâ€13: Highâ€Capacity and Highâ€Efficiency Lowâ€Temperature CO and Passive NO_{<i>x</i>} Adsorbers. Angewandte Chemie, 2018, 130, 16914-16919.	2.0	34
35	InÂsitu time-resolved characterization of novel Cuâ€“MoO2 catalysts during the waterâ€“gas shift reaction. Catalysis Letters, 2007, 113, 1-6.	2.6	31
36	Crystallization of Sodium Titanium Silicate with Sitinakite Topology:Â Evolution from the Sodium Nonatitanate Phase. Chemistry of Materials, 2004, 16, 3659-3666.	6.7	30

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37	[Ca(Thd)2(Tetraen)]:Â A Monomeric Precursor for Deposition of CaS Thin Films. Chemistry of Materials, 1997, 9, 1234-1240.	6.7	28
38	Comparison of citrateâ€"nitrate gel combustion and precursor plasma spray processes for the synthesis of yttrium aluminum garnet. Journal of Materials Research, 2002, 17, 2846-2851.	2.6	27
39	Real time study of cement and clinker phases hydration. Dalton Transactions, 2003, , 1529-1536.	3.3	24
40	In-situ X-ray powder diffraction studies of hydrothermal and thermal decomposition reactions of basic bismuth(iii) nitrates in the temperature range 20â€"650 Â°C. Dalton Transactions, 2003, , 3278-3282.	3.3	23
41	In situ dehydration of yugawaralite. American Mineralogist, 2001, 86, 185-192.	1.9	19
42	Hydrolysis of Pure and Sodium Substituted Calcium Aluminates and Cement Clinker Components Investigated by<i>in Situ</i>Synchrotron Xâ€ray Powder Diffraction. Journal of the American Ceramic Society, 2004, 87, 1488-1493.	3.8	18
43	Study of formation of cobalt and zinc phosphates in solvothermal synthesis using piperazine and 2-methylpiperazine as templating molecules. Structure investigations of [C4H8N2H4][(Co0.44(1)Zn0.56(1))2(PO4)(H1.5PO4)2] and of [C5N2H14][(Co0.25(3)Zn0.75(3))(HPO4)2]. Dalton Transactions RSC, 2001, , 1611-1615.	2.3	15
44	An In-situ X-ray Powder Diffraction Study of the Adsorption of Hydrofluorocarbons in Zeolites. Journal of Physical Chemistry B, 2001, 105, 2604-2611.	2.6	15
45	Effect of H₂O on the Morphological Changes of KNO₃ Formed on K₂O/Al₂O₃ NO_{<i>x</i>} Storage Materials: Fourier Transform Infrared and Time-Resolved X-ray Diffraction Studies. Journal of Physical Chemistry C, 2014, 118, 4189-4197.	3.1	14
46	Tailored multivariate analysis for modulated enhanced diffraction. Journal of Applied Crystallography, 2015, 48, 1679-1691.	4.5	11
47	Static and Dynamical Structural Investigations of Metalâ€Oxide Nanocrystals by Powder Xâ€ray Diffraction: Colloidal Tungsten Oxide as a Case Study. ChemPhysChem, 2016, 17, 699-709.	2.1	11
48	Preparation, interconversion and characterization of nanometer-sized molybdenum carbide catalysts. Topics in Catalysis, 2006, 39, 257-262.	2.8	9
49	Pulse Studies to Decipher the Role of Surface Morphology in CuO/CeO2 Nanocatalysts for the Water Gas Shift Reaction. Catalysis Letters, 2015, 145, 808-815.	2.6	9
50	(H3O)Fe(SO4)2 formed by dehydrating rhomboclase and its potential existence on Mars. American Mineralogist, 2010, 95, 1408-1412.	1.9	8
51	Structure and Thermal Stability of (H₂O)₄ Tetrahedron and (H₂O)₆ Hexagon Adsorbed on NaY Zeolite Studied by Synchrotron-Based Time-Resolved X-ray Diffraction. Industrial & Engineering Chemistry Research, 2018, 57, 4988-4995.	3.7	5
52	RÃ¼cktitelbild: Achieving Atomic Dispersion of Highly Loaded Transition Metals in Smallâ€Pore Zeolite SSZâ€13: Highâ€Capacity and Highâ€Efficiency Lowâ€Temperature CO and Passive NO_{<i>x</i>} Adsorbers (Angew. Chem. 51/2018). Angewandte Chemie, 2018, 130, 17152-17152.	2.0	1
53	Characterization of Mixed-Metal Oxides Using Synchrotron-Based Time-Resolved x-ray Diffraction and x-ray Absorption Spectroscopy. Materials Research Society Symposia Proceedings, 1999, 590, 113.	0.1	0
54	Techniques for the Study of the Structural Properties. , 2006, , 137-164.		0