David Lennon

List of Publications by Year
in descending order

93 papers	1,875 citations	279798 23 h-index	302126 39 g-index
96 all docs	96 docs citations	96 times ranked	1880 citing authors

#	Article	IF	Citations
1	The application of infrared spectroscopy to probe the surface morphology of alumina-supported palladium catalysts. Journal of Chemical Physics, 2005, 123, 174706.	3.0	276
2	Vibrational Spectroscopy with Neutrons: A Review of New Directions. Applied Spectroscopy, 2011, 65, 1325-1341.	2.2	143
3	Improved Description of the Surface Acidity of Î-Alumina. Journal of Physical Chemistry B, 2005, 109, 11592-11601.	2.6	87
4	Propyne hydrogenation over alumina-supported palladium and platinum catalysts. Applied Catalysis A: General, 2004, 259, 109-120.	4.3	71
5	The interaction of alumina with HCl: An infrared spectroscopy, temperature-programmed desorption and inelastic neutron scattering study. Catalysis Today, 2006, 114, 403-411.	4.4	60
6	Characterization of Activated Carbon Using X-ray Photoelectron Spectroscopy and Inelastic Neutron Scattering Spectroscopy. Langmuir, 2002, 18, 4667-4673.	3.5	56
7	Quantification of surface species present on a nickel/alumina methane reforming catalyst. Physical Chemistry Chemical Physics, 2010, 12, 3102.	2.8	50
8	An infrared and inelastic neutron scattering spectroscopic investigation on the interaction of Î-alumina and methanol. Physical Chemistry Chemical Physics, 2005, 7, 3093.	2.8	44
9	The Application of Diffuse Reflectance Infrared Spectroscopy and Temperature-Programmed Desorption To Investigate the Interaction of Methanol on Î-Alumina. Langmuir, 2005, 21, 11092-11098.	3.5	43
10	Application of inelastic neutron scattering to studies of CO2 reforming of methane over alumina-supported nickel and gold-doped nickel catalysts. Physical Chemistry Chemical Physics, 2012, 14, 15214.	2.8	40
11	An assessment of hydrocarbon species in the methanol-to-hydrocarbon reaction over a ZSM-5 catalyst. Faraday Discussions, 2017, 197, 447-471.	3.2	34
12	The application of inelastic neutron scattering to investigate CO hydrogenation over an iron Fischerâ€"Tropsch synthesis catalyst. Journal of Catalysis, 2014, 312, 221-231.	6.2	33
13	The effect of hydrogen concentration on propyne hydrogenation over a carbon supported palladium catalyst studied under continuous flow conditions. Studies in Surface Science and Catalysis, 2000, 130, 245-250.	1.5	31
14	A model high surface area alumina-supported palladium catalyst. Physical Chemistry Chemical Physics, 2005, 7, 565-567.	2.8	30
15	Sample environment issues relevant to the acquisition of inelastic neutron scattering measurements of heterogeneous catalyst samples. Journal of Physics: Conference Series, 2014, 554, 012005.	0.4	30
16	The application of inelastic neutron scattering to investigate the â€˜dryâ€™ reforming of methane over an alumina-supported nickel catalyst operating under conditions where filamentous carbon formation is prevalent. RSC Advances, 2013, 3, 16577-16589.	3.6	29
17	Persistent species formed during the carbon dioxide reforming of methane over a nickelâ€"alumina catalyst. Catalysis Today, 2010, 155, 319-325.	4.4	28
18	The application of inelastic neutron scattering to investigate the steam reforming of methane over an alumina-supported nickel catalyst. Chemical Physics, 2013, 427, 54-60.	1.9	28

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19	Inelastic Neutron Scattering Studies of Methyl Chloride Synthesis over Alumina. Accounts of Chemical Research, 2014, 47, 1220-1227.	15.6	26
20	Different routes to methanol: inelastic neutron scattering spectroscopy of adsorbates on supported copper catalysts. Physical Chemistry Chemical Physics, 2016, 18, 17253-17258.	2.8	26
21	Vibrational Analysis of an Industrial Feâ€Based Fischerâ€"Tropsch Catalyst Employing Inelastic Neutron Scattering. Angewandte Chemie - International Edition, 2013, 52, 5608-5611.	13.8	25
22	Experimental arrangements suitable for the acquisition of inelastic neutron scattering spectra of heterogeneous catalysts. Review of Scientific Instruments, 2011, 82, 034101.	1.3	24
23	The application of temperature-programmed desorption, adsorption isotherms and temperature-programmed oxidation to investigate the interaction of CO with alumina-supported palladium catalysts. Catalysis Today, 2007, 126, 219-227.	4.4	23
24	The effects of MTG catalysis on methanol mobility in ZSM-5. Catalysis Science and Technology, 2018, 8, 3304-3312.	4.1	23
25	The application of a supported palladium catalyst for the hydrogenation of aromatic nitriles. Journal of Molecular Catalysis A, 2016, 411, 239-246.	4.8	22
26	Adsorption and Reaction of CO on (Pdâ€")Al2O3 and (Pdâ€")ZrO2: Vibrational Spectroscopy of Carbonate Formation. Topics in Catalysis, 2017, 60, 1722-1734.	2.8	22
27	The Hydrogenation of 2-butyne-1,4-diol over a Carbon-supported Palladium Catalyst. Catalysis Letters, 2005, 103, 195-199.	2.6	21
28	Improved atom efficiency via an appreciation of the surface activity of alumina catalysts: Methyl chloride synthesis. Applied Catalysis B: Environmental, 2007, 70, 606-610.	20.2	17
29	The application of inelastic neutron scattering to explore the significance of a magnetic transition in an iron based Fischer-Tropsch catalyst that is active for the hydrogenation of CO. Journal of Chemical Physics, 2015, 143, 174703.	3.0	17
30	Investigation of ZSM-5 catalysts for dimethylether conversion using inelastic neutron scattering. Applied Catalysis A: General, 2019, 569, 1-7.	4.3	17
31	An inelastic neutron scattering spectroscopic investigation of the adsorption of ethene and propene on carbon. Physical Chemistry Chemical Physics, 2000, 2, 4447-4451.	2.8	16
32	Application of Inelastic Neutron Scattering to the Methanol-to-Gasoline Reaction Over a ZSM-5 Catalyst. Catalysis Letters, 2016, 146, 1242-1248.	2.6	16
33	Examining the temporal behavior of the hydrocarbonaceous overlayer on an iron based Fischerâ€"Tropsch catalyst. RSC Advances, 2019, 9, 2608-2617.	3.6	16
34	Variable-temperature, 1H NMR study of hydrogen chemisorption on EuroPt-1. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 4709.	1.7	15
35	Morphological and chemical influences on alumina-supported palladium catalysts active for the gas phase hydrogenation of crotonaldehyde. Journal of Chemical Physics, 2011, 134, 214704.	3.0	15
36	Hydrogenation on Palladium Nanoparticles Supported by Graphene Nanoplatelets. Journal of Physical Chemistry C, 2020, 124, 23674-23682.	3.1	15

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37	Effect of steam de-alumination on the interactions of propene with H-ZSM-5 zeolites. RSC Advances, 2020, 10, 23136-23147.	3.6	15
38	The application of inelastic neutron scattering to investigate a hydrogen pre-treatment stage of an iron Fischerâ€“Tropsch catalyst. Applied Catalysis A: General, 2015, 489, 209-217.	4.3	14
39	Hydrogenation of Benzonitrile over Supported Pd Catalysts: Kinetic and Mechanistic Insight. Organic Process Research and Development, 2019, 23, 977-989.	2.7	14
40	Introducing undergraduates to green chemistry: an interactive teaching exercise. Green Chemistry, 2005, 7, 121.	9.0	13
41	A structural and spectroscopic investigation of the hydrochlorination of 4,4â€²-methylenedianiline. Physical Chemistry Chemical Physics, 2010, 12, 3824.	2.8	12
42	Investigation of the Dynamics of 1-Octene Adsorption at 293 K in a ZSM-5 Catalyst by Inelastic and Quasielastic Neutron Scattering. Journal of Physical Chemistry C, 2019, 123, 417-425.	3.1	12
43	The hydrogenation of 1,3-pentadiene over an alumina-supported palladium catalyst: an FTIR study. Physical Chemistry Chemical Physics, 2004, 6, 5588.	2.8	11
44	The development of a new generation of methyl chloride synthesis catalyst. Faraday Discussions, 2016, 188, 467-479.	3.2	11
45	Perspectives on the effect of sulfur on the hydrocarbonaceous overlayer on iron Fischer-Tropsch catalysts. Catalysis Today, 2020, 339, 32-39.	4.4	11
46	The Methyl Torsion in Unsaturated Compounds. ACS Omega, 2020, 5, 2755-2765.	3.5	11
47	Phosgene formation via carbon monoxide and dichlorine reaction over an activated carbon catalyst: Reaction testing arrangements. Applied Catalysis A: General, 2020, 594, 117467.	4.3	11
48	No evidence for Evansâ€™ holes in the A, B, C vibrational structure of potassium dihydrogen arsenate. Journal of Chemical Physics, 2010, 133, 034508.	3.0	10
49	1H NMR of hydrogen chemisorbed on silica-supported platinum particles: an evaluation of different models. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 2203.	1.7	9
50	Effect of Toluene-d8 on the Hydrogenation of 1,3-Hexadiene over a Pd/Silica CatalystPromoter and Poison. Langmuir, 2000, 16, 6519-6526.	3.5	9
51	The application of inelastic neutron scattering to investigate iron-based Fischer-Tropsch to olefins catalysis. Journal of Catalysis, 2020, 392, 197-208.	6.2	9
52	Phosgene formation via carbon monoxide and dichlorine reaction over an activated carbon catalyst: Reaction kinetics and mass balance relationships. Applied Catalysis A: General, 2020, 602, 117688.	4.3	9
53	Onset of Propene Oligomerization Reactivity in ZSM-5 Studied by Inelastic Neutron Scattering Spectroscopy. ACS Omega, 2020, 5, 7762-7770.	3.5	9
54	Chlorination and dehydrochlorination reactions relevant to the manufacture of trichloroethene and tetrachloroethene. Applied Catalysis A: General, 2011, 399, 1-11.	4.3	8

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55	The production of tyramine <i>via</i> the selective hydrogenation of 4-hydroxybenzyl cyanide over a carbon-supported palladium catalyst. RSC Advances, 2018, 8, 29392-29399.	3.6	8
56	Low-temperature studies of propene oligomerization in ZSM-5 by inelastic neutron scattering spectroscopy. RSC Advances, 2019, 9, 18785-18790.	3.6	8
57	The observation of equilibria present in stepwise gas phase hydrogenation reactions. Catalysis Today, 2010, 155, 206-213.	4.4	7
58	Structure/activity relationships applied to the hydrogenation of Î±,Î²-unsaturated carbonyls: The hydrogenation of 3-butyne-2-one over alumina-supported palladium catalysts. Catalysis Today, 2017, 283, 110-118.	4.4	7
59	The hydrogenation of mandelonitrile over a Pd/C catalyst: towards a mechanistic understanding. RSC Advances, 2019, 9, 26116-26125.	3.6	7
60	Hydrogen Partitioning as a Function of Time-on-Stream for an Unpromoted Iron-Based Fischerâ€"Tropsch Synthesis Catalyst Applied to CO Hydrogenation. Industrial & Engineering Chemistry Research, 2020, 59, 52-60.	3.7	7
61	The Application of Attenuated Total Reflection Infrared Spectroscopy to Investigate the Liquid Phase Hydrogenation of Benzaldehyde Over an Alumina-Supported Palladium Catalyst. Topics in Catalysis, 2020, 63, 386-393.	2.8	7
62	Toward Sustained Product Formation in the Liquid-Phase Hydrogenation of Mandelonitrile over a Pd/C Catalyst. Organic Process Research and Development, 2020, 24, 1112-1123.	2.7	7
63	Neutron spectroscopy studies of methanol to hydrocarbons catalysis over ZSM-5. Catalysis Today, 2021, 368, 20-27.	4.4	7
64	Studies of propene conversion over H-ZSM-5 demonstrate the importance of propene as an intermediate in methanol-to-hydrocarbons chemistry. Catalysis Science and Technology, 2021, 11, 2924-2938.	4.1	7
65	A Comparison of Experimental Procedures for the Application of Infrared Spectroscopy to Probe the Surface Morphology of an Alumina-Supported Palladium Catalyst. Topics in Catalysis, 2021, 64, 1010-1020.	2.8	7
66	New Spectroscopic Insight into the Deactivation of a ZSMâ€5 Methanolâ€toâ€Hydrocarbons Catalyst. ChemCatChem, 2021, 13, 2625-2633.	3.7	7
67	Mechanistic Insight Into the Application of Alumina-Supported Pd Catalysts for the Hydrogenation of Nitrobenzene to Aniline. Industrial & Engineering Chemistry Research, 2022, 61, 10712-10722.	3.7	7
68	Propyne hydrogenation over a silica-supported platinum catalyst studied under transient conditions. Studies in Surface Science and Catalysis, 1999, 122, 125-132.	1.5	6
69	Chlorination reactions relevant to the manufacture of trichloroethene and tetrachloroethene; Part 2: Effects of chlorine supply. Applied Catalysis A: General, 2014, 471, 149-156.	4.3	6
70	The application of inelastic neutron scattering to investigate the interaction of methyl propanoate with silica. Physical Chemistry Chemical Physics, 2016, 18, 17210-17216.	2.8	6
71	The Effect of Co-feeding Methyl Acetate on the H-ZSM5 Catalysed Methanol-to-Hydrocarbons Reaction. Topics in Catalysis, 2020, 63, 370-377.	2.8	6
72	Phosgene formation via carbon monoxide and dichlorine reaction over an activated carbon catalyst: Towards a reaction model. Applied Catalysis A: General, 2021, 609, 117900.	4.3	6

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73	Phosgene Synthesis Catalysis: The Influence of Small Quantities of Bromine in the Chlorine Feedstream. Industrial & Engineering Chemistry Research, 2021, 60, 3363-3373.	3.7	6
74	The Characterisation of Hydrogen on Nickel and Cobalt Catalysts. Topics in Catalysis, 2021, 64, 644-659.	2.8	6
75	Toward High Selectivity Aniline Synthesis Catalysis at Elevated Temperatures. Industrial & Engineering Chemistry Research, 2021, 60, 17917-17927.	3.7	6
76	A structural and spectroscopic investigation of the hydrochlorination of 4-benzylaniline: the interaction of anhydrous hydrogen chloride with chlorobenzene. Physical Chemistry Chemical Physics, 2009, 11, 288-297.	2.8	5
77	Origin of Impurities Formed in the Polyurethane Production Chain. 1. Conditions for Chlorine Transfer from an Aryl Isocyanide Dichloride Byproduct. Industrial & Engineering Chemistry Research, 2012, 51, 2515-2523.	3.7	5
78	Metal Fluorides, Metal Chlorides and Halogenated Metal Oxides as Lewis Acidic Heterogeneous Catalysts. Providing Some Context for Nanostructured Metal Fluorides. Molecules, 2017, 22, 201.	3.8	5
79	A Spectroscopic Paradox: The Interaction of Methanol with ZSM-5 at Room Temperature. Topics in Catalysis, 2021, 64, 672-684.	2.8	5
80	Origin of Impurities Formed in a Polyurethane Production Chain. Part 2: A Route to the Formation of Colored Impurities. Industrial & Engineering Chemistry Research, 2012, 51, 11021-11030.	3.7	4
81	The Solvation and Dissociation of 4-Benzylaniline Hydrochloride in Chlorobenzene. Industrial & Engineering Chemistry Research, 2014, 53, 4156-4164.	3.7	4
82	Spectroscopic Characterization of Model Compounds, Reactants, and Byproducts Connected with an Isocyanate Production Chain. Industrial & Engineering Chemistry Research, 2018, 57, 7355-7362.	3.7	4
83	Investigating the Acid Site Distribution of a New-Generation Methyl Chloride Synthesis Catalyst. ACS Omega, 2019, 4, 13981-13990.	3.5	4
84	The Application of Quasi-Elastic Neutron Scattering to Investigate Hydrogen Diffusion in an Iron-Based Fischerâ€“Tropsch Synthesis Catalyst. Topics in Catalysis, 2020, 63, 378-385.	2.8	4
85	Effects of Substituents on the Structure and Bonding of Thiophene on Cu(111). Journal of Physical Chemistry B, 2001, 105, 5231-5237.	2.6	3
86	Structural behaviour of copper chloride catalysts during the chlorination of CO to phosgene. Faraday Discussions, 2018, 208, 67-85.	3.2	3
87	Net Zero and Catalysis: How Neutrons Can Help. Physchem, 2021, 1, 95-120.	1.1	3
88	The interaction of CO with a copper(ii) chloride oxy-chlorination catalyst. Faraday Discussions, 2021, 229, 318-340.	3.2	2
89	Structural and spectroscopic characterisation of C4 oxygenates relevant to structure/activity relationships of the hydrogenation of Î±,Î²-unsaturated carbonyls. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 153, 289-297.	3.9	1
90	Isotopic substitution experiments in the hydrogenation of mandelonitrile over a carbon supported Pd catalyst: A nuclear magnetic resonance study. Molecular Catalysis, 2020, 484, 110720.	2.0	1

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91	An Inelastic Neutron Scattering Investigation of the Temporal Behaviour of the Hydrocarbonaceous Overlayer of a Prototype Fischer-Tropsch to Olefins Catalyst. Topics in Catalysis, 2021, 64, 631-637.	2.8	1
92	The Preparation of a Residueâ€free, Aluminaâ€supported Gold Catalyst by Decomposition of an Azidoâ€Gold(III) Complex and an Evaluation of the Effectiveness of the Catalyst for the Hydrogenation of Propyne. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 694-698.	1.2	0
93	Interaction of Methanol over CsCl- and KCl-Doped Î·-Alumina and the Attenuation of Dimethyl Ether Formation. Journal of Physical Chemistry C, 0, , .	3.1	0