

Wendy A Brown

List of Publications by Year in descending order

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72
papers

2,952
citations

172457

29
h-index

168389

53
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74
all docs

74
docs citations

74
times ranked

2589
citing authors

#	ARTICLE	IF	CITATIONS
1	NO Chemisorption and Reactions on Metal Surfaces: A New Perspective. <i>Journal of Physical Chemistry B</i> , 2000, 104, 2578-2595.	2.6	349
2	Femtomole Adsorption Calorimetry on Single-Crystal Surfaces. <i>Chemical Reviews</i> , 1998, 98, 797-832.	47.7	285
3	Structure and stability of the (001) $\hat{\alpha}$ -quartz surface. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 2146-2152.	2.8	189
4	Ice in space: surface science investigations of the thermal desorption of model interstellar ices on dust grain analogue surfaces. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5947.	2.8	141
5	Very Low Temperature Surface Reaction: N ₂ O Formation from NO Dimers at 70 to 90 K on Ag{111}. <i>The Journal of Physical Chemistry</i> , 1995, 99, 7065-7074.	2.9	134
6	Reflection Absorption Infrared Spectroscopy and Temperature-Programmed Desorption Studies of the Adsorption and Desorption of Amorphous and Crystalline Water on a Graphite Surface. <i>Journal of Physical Chemistry B</i> , 2005, 109, 16836-16845.	2.6	107
7	Fundamental data on the desorption of pure interstellar ices. <i>Monthly Notices of the Royal Astronomical Society</i> , 2007, 374, 1006-1014.	4.4	88
8	Characterization and orientation of adsorbed NO dimers on Ag{111} at low temperatures. <i>Journal of Chemical Physics</i> , 1995, 102, 7277-7280.	3.0	78
9	An embedded cluster study of the formation of water on interstellar dust grains. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 5431.	2.8	78
10	Adsorption and Reactivity of NO and N ₂ O on Cu{110}: Combined RAIRS and Molecular Beam Studies. <i>The Journal of Physical Chemistry</i> , 1996, 100, 12559-12568.	2.9	67
11	Formation of CO ₂ on a carbonaceous surface: a quantum chemical study. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 384, 1158-1164.	4.4	65
12	Reflection absorption infrared spectroscopy and temperature programmed desorption investigations of the interaction of methanol with a graphite surface. <i>Journal of Chemical Physics</i> , 2005, 122, 044713.	3.0	64
13	Redox Behavior of the Model Catalyst Pd/CeO ₂ /Pt(111). <i>Journal of Physical Chemistry C</i> , 2008, 112, 10918-10922.	3.1	62
14	GLYCOLALDEHYDE FORMATION VIA THE DIMERIZATION OF THE FORMYL RADICAL. <i>Astrophysical Journal</i> , 2013, 777, 90.	4.5	62
15	Thermal Desorption of Interstellar Ices: A Review on the Controlling Parameters and Their Implications from Snowlines to Chemical Complexity. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 597-630.	2.7	55
16	ON THE FORMATION OF GLYCOLALDEHYDE IN DENSE MOLECULAR CORES. <i>Astrophysical Journal</i> , 2012, 750, 19.	4.5	54
17	A RAIRS and TPD investigation of the adsorption of CO on Pt{211}. <i>Surface Science</i> , 2003, 527, 198-208.	1.9	52
18	Applying laboratory thermal desorption data in an interstellar context: sublimation of methanol thin films. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 398, 357-367.	4.4	43

#	ARTICLE	IF	CITATIONS
19	Role of Lateral Interactions in Adsorption Kinetics: $\text{CO/Rh}\{100\}$. <i>Journal of Physical Chemistry B</i> , 1999, 103, 8722-8725.	2.6	41
20	Formation of H_2 on an olivine surface: a computational study. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 393, 1403-1407.	4.4	40
21	The adsorption of CO on Pt{110} over the temperature range from 90 to 300K studied by RAIRS. <i>Surface Science</i> , 1998, 414, 68-76.	1.9	38
22	Glycolaldehyde, methyl formate and acetic acid adsorption and thermal desorption from interstellar ices. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 447, 1444-1451.	4.4	37
23	The adsorption of NO_2 on Ag {111} : a low temperature RAIRS study. <i>Surface Science</i> , 1995, 330, 41-47.	1.9	36
24	Calorimetric measurements of the adsorption heat for ethene on Pt{211} and Pt{311}. <i>Surface Science</i> , 1999, 440, 271-278.	1.9	36
25	Site Switching and Surface Restructuring Induced by NO Adsorption on Pt{110}. <i>Journal of Physical Chemistry B</i> , 1998, 102, 5303-5308.	2.6	35
26	CO Adsorption on the Model Catalyst $\text{Pd/CeO}_2 \cdot x$ (111)/Rh(111). <i>Journal of Physical Chemistry C</i> , 2007, 111, 14215-14222.	3.1	34
27	Studies of physisorbed ammonia overlayers adsorbed on graphite. <i>Surface Science</i> , 2005, 598, 45-56.	1.9	32
28	The Adsorption of CO on the Stepped Pt{211} Surface: A Comparison of Theory and Experiment. <i>Catalysis Letters</i> , 2003, 88, 39-45.	2.6	30
29	Desorption of Hot Molecules from Photon Irradiated Interstellar Ices. <i>Astrophysical Journal</i> , 2008, 673, 1233-1239.	4.5	30
30	The Temperature Dependence of the Adsorption of NO on Pt{211}: A RAIRS and DFT Investigation. <i>Journal of Physical Chemistry B</i> , 2004, 108, 289-296.	2.6	29
31	Energetics and Kinetics of Step-Terrace Adsorbate Distribution: C_2H_2 on Pt{211}. <i>Journal of the American Chemical Society</i> , 1999, 121, 4845-4851.	13.7	27
32	The adsorption and desorption of ethanol ices from a model grain surface. <i>Journal of Chemical Physics</i> , 2008, 128, 104702.	3.0	27
33	Surface science investigations of the role of CO_2 in astrophysical ices. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20110578.	3.4	27
34	NO monomer and $(\text{NO})_x$ polymeric chain chemisorption on Pt{110}: Structure and energetics. <i>Journal of Chemical Physics</i> , 1999, 110, 12082-12088.	3.0	25
35	Lateral potential energy surfaces for molecular chemisorption on metals from experiment and theory: NO on Pt{110}-(1 $\bar{1}$ -2). <i>Chemical Physics Letters</i> , 1999, 299, 253-259.	2.6	25
36	Studies of Binary Layered $\text{CH}_3\text{OH}/\text{H}_2\text{O}$ Ices Adsorbed on a Graphite Surface. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5990-5999.	3.1	24

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37	Computational Study of Carbonyl Sulphide Formation on Model Interstellar Dust Grains. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1892-1900.	3.1	24
38	Hydrogenation of CO on a silica surface: An embedded cluster approach. <i>Journal of Chemical Physics</i> , 2008, 128, 134709.	3.0	23
39	An investigation of the effect of pre-dosed O atoms on the adsorption of NO on Pt{211}. <i>Surface Science</i> , 2003, 547, 27-44.	1.9	22
40	Adsorption and Thermal Processing of Glycolaldehyde, Methyl Formate, and Acetic Acid on Graphite at 20 K. <i>Journal of Physical Chemistry A</i> , 2015, 119, 6837-6849.	2.5	21
41	Silica grain catalysis of methanol formation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2007, 382, 1829-1832.	4.4	19
42	Molecules, ices and astronomy. <i>Astronomy and Geophysics</i> , 2007, 48, 1.25-1.34.	0.2	19
43	Surface science investigations of photoprocesses in model interstellar ices. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008, 26, 919-924.	2.1	18
44	Low Pressure RAIRS Studies of Model Catalytic Systems. <i>Journal of Physical Chemistry C</i> , 2010, 114, 6879-6893.	3.1	18
45	The role of adsorption heats and bond energies in the assignment of surface reaction products: ethyne and ethene on Ni{110}. <i>Journal of Molecular Catalysis A</i> , 1999, 141, 21-29.	4.8	17
46	The influence of steps on the dissociation of NO on Pt surfaces: Temperature-programmed desorption studies of NO adsorption on Pt{211}. <i>Journal of Chemical Physics</i> , 2003, 119, 10844-10852.	3.0	17
47	Photon- and electron-stimulated desorption from laboratory models of interstellar ice grains. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 799-806.	2.1	17
48	Catalysis of Addition Reactions by a Negatively Charged Silica Surface Site on a Dust Grain. <i>Journal of Physical Chemistry C</i> , 2008, 112, 15419-15422.	3.1	16
49	Multilayer influences on the monolayer structure for NO on Pt{110}-(1 $\bar{1}$ -2). <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 1995-2000.	2.8	15
50	Ethylene oxide and acetaldehyde in hot cores. <i>Astronomy and Astrophysics</i> , 2014, 564, A123.	5.1	15
51	Trapping and desorption of complex organic molecules in water at 20 K. <i>Journal of Chemical Physics</i> , 2015, 143, 164704.	3.0	14
52	Peeling the astronomical onion. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 31930-31935.	2.8	14
53	RAIRS studies of CO adsorption on Pd/CeO ₂ x(111)/Pt(111). <i>Surface Science</i> , 2006, 600, 2555-2561.	1.9	13
54	Determination of the Rh-C bond energy for C ₂ H ₂ and C ₂ H ₄ reactive adsorption on Rh{100}. <i>Chemical Physics Letters</i> , 1999, 311, 109-116.	2.6	11

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55	Laboratory investigations of the role of the grain surface in astrochemical models. Faraday Discussions, 2006, 133, 113.	3.2	11
56	A TPD and RAIRS comparison of the low temperature surface behavior of benzene, toluene, and xylene on graphite. Journal of Chemical Physics, 2018, 149, 164705.	3.0	10
57	A new technique for determining the refractive index of ices at cryogenic temperatures. Physical Chemistry Chemical Physics, 2020, 22, 25353-25365.	2.8	10
58	Thermally induced mixing of water dominated interstellar ices. Physical Chemistry Chemical Physics, 2008, 10, 4956.	2.8	8
59	Adsorbed CO chain condensation and evaporation on Pt{110}-(1 $\bar{1}$ 2) at 30 \pm 70 K studied by RAIRS. Chemical Physics Letters, 1998, 291, 1-6.	2.6	7
60	The effects of methanol on the trapping of volatile ice components. Monthly Notices of the Royal Astronomical Society, 2015, 448, 1807-1815.	4.4	7
61	Desorption and crystallisation of binary 2-propanol and water ices adsorbed on graphite. RSC Advances, 2017, 7, 51621-51631.	3.6	7
62	Astrochemistry. Physical Chemistry Chemical Physics, 2014, 16, 3343.	2.8	6
63	A RAIRS, TPD and femtosecond laser-induced desorption study of CO, NO and coadsorbed CO + NO on Pd(111). RSC Advances, 2016, 6, 66346-66359.	3.6	4
64	A fibre-coupled UHV-compatible variable angle reflection-absorption UV/visible spectrometer. Review of Scientific Instruments, 2018, 89, 054102.	1.3	4
65	Thermal Processing and Interactions of Ethyl Formate in Model Astrophysical Ices Containing Water and Ethanol. ACS Earth and Space Chemistry, 2019, 3, 1524-1536.	2.7	4
66	Using Laboratory Investigations to Aid the Identification of Small Aromatic Molecules in Water-Containing Astrophysical Ices. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	4
67	Using Surface Science Techniques to Investigate the Interaction of Acetonitrile with Dust Grain Analogue Surfaces. Johnson Matthey Technology Review, 2021, 65, 600-614.	1.0	3
68	Reflection Absorption Infrared Spectroscopy at Low Temperatures. , 1996, , 569-593.		0
69	The making of Stars 'R' Us!. Astronomy and Geophysics, 2004, 45, 6.22-6.24.	0.2	0
70	Stars \hat{R} Us!. Astronomy and Geophysics, 2004, 45, 5.4-5.4.	0.2	0
71	3.7.2.5 Figures for 3.7.2. , 0, , 341-351.		0
72	3.7.2.6 References for 3.7.2. , 0, , 352-361.		0