

Wilfred T Tysoe

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.

126
papers

2,356
citations

28
h-index

41
g-index

132
ext. papers

2,563
ext. citations

4.6
avg, IF

5.26
L-index

#	Paper	IF	Citations
126	Reflection absorption infrared spectroscopy of the surface chemistry of furfural on Pd(111). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022 , 40, 013203	2.9	0
125	Influence of the Nature and Orientation of the Terminal Group on the Tribochemical Reaction Rates of Carboxylic Acid Monolayers on Copper. <i>Tribology Letters</i> , 2022 , 70, 1	2.8	0
124	Adsorption Structure and Reactivity of a Putative Asymmetric Molecular Conductor; 4-Isocyanophenyl Disulfide on Au(111). <i>Journal of Physical Chemistry C</i> , 2022 , 126, 6601-6611	3.8	0
123	Prandtl–Tomlinson-Type Models for Coupled Molecular Sliding Friction: Chain-Length Dependence of Friction of Self-assembled Monolayers. <i>Tribology Letters</i> , 2022 , 70, 1	2.8	
122	Prandtl–Tomlinson-Type Models for Molecular Sliding Friction. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	1
121	Binding of Oxygen on Single-Atom Sites on Au/Pd(100) Alloys with High Gold Coverages. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 9715-9729	3.8	1
120	Surface Chemistry at the Solid-Solid Interface; Selectivity and Activity in Mechanochemical Reactions on Surfaces. <i>Chemistry Methods</i> , 2021 , 1, 340-349		1
119	Influence of the terminal group on the thermal decomposition reactions of carboxylic acids on copper: nature of the carbonaceous film. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 17663-17671	3.6	3
118	Surface chemistry at the solid-solid interface: mechanically induced reaction pathways of C carboxylic acid monolayers on copper. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 17803-17812	3.6	2
117	Insights into the Mechanism of the Mechanochemical Formation of Metastable Phases. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 6785-6794	9.5	5
116	Inducing High-Energy-Barrier Tribochemical Reaction Pathways; Acetic Acid Decomposition on Copper. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	7
115	Structure and reaction pathways of octanoic acid on copper. <i>Surface Science</i> , 2021 , 711, 121875	1.8	5
114	Adsorption and reaction pathways of 7-octenoic acid on copper. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 5834-5844	3.6	6
113	Infrared spectroscopic measurements of the structure of organic thin films; furfural on Pd(111) and Au(111) surfaces. <i>CrystEngComm</i> , 2021 , 23, 4534-4548	3.3	2
112	Mechanism of the Accelerated Water Formation Reaction under Interfacial Confinement. <i>ACS Catalysis</i> , 2020 , 10, 6119-6128	13.1	9
111	Measuring and modelling mechanochemical reaction kinetics. <i>Chemical Communications</i> , 2020 , 56, 7730-7733	3.833	15
110	The reactivity, selectivity and structure of 2-butanol on clean and oxygen-covered Au/Pd(100) alloys. <i>Surface Science</i> , 2020 , 694, 121556	1.8	

109	Adsorption and Reaction of Trimethyl and Triethyl Phosphite on Fe ₃ O ₄ by Density Functional Theory. <i>Tribology Letters</i> , 2020 , 68, 1	2.8	
108	Surface structure of 1,4-benzenedithiol on Au(111). <i>Surface Science</i> , 2020 , 702, 121717	1.8	4
107	Chemical Self-Assembly Strategies for Designing Molecular Electronic Circuits: Demonstration of Concept. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 10398-10405	3.8	2
106	Tribochemical Mechanisms of Trimethyl and Triethyl Phosphite on Oxidized Iron in Ultrahigh Vacuum. <i>Tribology Letters</i> , 2019 , 67, 1	2.8	5
105	Chemical self-assembly strategies for designing molecular electronic circuits. <i>Chemical Communications</i> , 2019 , 55, 13872-13875	5.8	5
104	The structure of alanine anionic-zwitterionic dimers on Pd(111); formation of salt bridges. <i>Surface Science</i> , 2019 , 679, 79-85	1.8	1
103	Combining IR Spectroscopy and Monte Carlo Simulations to Identify CO Adsorption Sites on Bimetallic Alloys. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 8406-8420	3.8	8
102	Adsorption and Structure of Chiral Epoxides on Pd(111): Propylene Oxide and Glycidol. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 1215-1222	3.8	1
101	Effect of Coverage on Catalytic Selectivity and Activity on Metallic and Alloy Catalysts; Vinyl Acetate Monomer Synthesis. <i>Topics in Catalysis</i> , 2018 , 61, 722-735	2.3	3
100	Characterization of the Tribological Behavior of the Textured Steel Surfaces Fabricated by Photolithographic Etching. <i>Tribology Letters</i> , 2018 , 66, 1	2.8	17
99	Development of a ReaxFF Force Field for Cu/S/C/H and Reactive MD Simulations of Methyl Thiolate Decomposition on Cu (100). <i>Journal of Physical Chemistry B</i> , 2018 , 122, 888-896	3.4	14
98	In-Situ Measurement of Tribochemical Processes in Ultrahigh Vacuum. <i>Microtechnology and MEMS</i> , 2018 , 129-158	0.6	
97	Vinyl Acetate Formation on Au/Pd(100) Alloy Surfaces. <i>Catalysis Letters</i> , 2018 , 148, 79-89	2.8	1
96	Spontaneous self-assembly of conductive molecular linkages between gold nanoelectrodes from aryl diisocyanides. <i>Applied Physics A: Materials Science and Processing</i> , 2018 , 124, 1	2.6	3
95	Adsorption, Assembly, and Oligomerization of Aspartic Acid on Pd(111). <i>Journal of Physical Chemistry C</i> , 2017 , 121, 13239-13248	3.8	3
94	Kinetics and Mechanism of Vinyl Acetate Monomer Synthesis on Pd(100) Model Catalysts. <i>Catalysis Letters</i> , 2017 , 147, 1941-1954	2.8	2
93	Modeling Mechanochemical Reaction Mechanisms. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 26534-26538	3.3	3
92	On Stress-Induced Tribochemical Reaction Rates. <i>Tribology Letters</i> , 2017 , 65, 1	2.8	36

91	Enhanced hydrogenation activity and diastereomeric interactions of methyl pyruvate co-adsorbed with R-1-(1-naphthyl)ethylamine on Pd(111). <i>Nature Communications</i> , 2016 , 7, 12380	17.4	27
90	Surface chemistry and structures of 1,4-phenylene diisocyanide on gold films from solution. <i>Surface Science</i> , 2016 , 649, 56-59	1.8	7
89	Identification of the Shear Plane During Sliding of Solid Boundary Films: Potassium Chloride Films on Iron. <i>Tribology Letters</i> , 2016 , 62, 1	2.8	1
88	In Situ Measurements of Boundary Film Formation Pathways and Kinetics: Dimethyl and Diethyl Disulfide on Copper. <i>Tribology Letters</i> , 2016 , 62, 1	2.8	20
87	Kinetics of low-temperature CO oxidation on Au(111). <i>Surface Science</i> , 2016 , 648, 236-241	1.8	4
86	The adsorption of ethylene on Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2016 , 646, 65-71	1.8	5
85	Adsorption and Oligomerization of 1,3-Phenylene Diisocyanide on Au(111). <i>Journal of Physical Chemistry C</i> , 2016 , 120, 9270-9275	3.8	5
84	Local and Extended Structures of d-(1)-Tartaric Acid on Pd(111). <i>Journal of Physical Chemistry C</i> , 2016 , 120, 2309-2319	3.8	6
83	Pressure dependence of the interfacial structure of potassium chloride films on iron. <i>Thin Solid Films</i> , 2015 , 593, 150-157	2.2	3
82	Self-Assembled Oligomeric Structures from 1,4-Benzenedithiol on Au(111) and the Formation of Conductive Linkers between Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 23042-23051	3.8	17
81	Influence of Potential Shape on Constant-Force Atomic-Scale Sliding Friction Models. <i>Tribology Letters</i> , 2015 , 60, 1	2.8	12
80	Structural Changes in Self-Catalyzed Adsorption of Carbon Monoxide on 1,4-Phenylene Diisocyanide Modified Au(111). <i>Journal of Physical Chemistry C</i> , 2015 , 119, 18317-18325	3.8	9
79	Shear-Induced Mechanochemistry: Pushing Molecules Around. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 7115-7123	3.8	48
78	Chemisorptive enantioselectivity of chiral epoxides on tartaric-acid modified Pd(111): three-point bonding. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 5450-8	3.6	9
77	On the Commonality Between Theoretical Models for Fluid and Solid Friction, Wear and Tribochemistry. <i>Tribology Letters</i> , 2015 , 59, 1	2.8	79
76	Formation of Induced-Fit Chiral Templates by Amino Acid-Functionalized Pd(111) Surfaces. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 3556-3563	3.8	11
75	Adsorption and reaction pathways of a chiral probe molecule, S-glycidol on a Pd(111) surface. <i>Catalysis Science and Technology</i> , 2015 , 5, 738-742	5.5	6
74	Surface Chemistry for Enantioselective Catalysis. <i>Catalysis Letters</i> , 2015 , 145, 220-232	2.8	71

73	Disentangling ensemble, electronic and coverage effects on alloy catalysts: Vinyl acetate synthesis on Au/Pd(111). <i>Journal of Catalysis</i> , 2014 , 312, 37-45	7.3	24
72	Formation of Chiral Self-Assembled Structures of Amino Acids on Transition-Metal Surfaces: Alanine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2014 , 118, 6856-6865	3.8	25
71	Shear and thermal effects in boundary film formation during sliding. <i>RSC Advances</i> , 2014 , 4, 24059-24066	6.7	16
70	Understanding and Controlling the 1,4-Phenylene Diisocyanide-Gold Oligomer Formation Pathways. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 20899-20907	3.8	17
69	Determination of Adsorbate Structures from 1,4-Phenylene Diisocyanide on Gold. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3577-81	6.4	17
68	Temperature Dependences in the Tomlinson/Prandtl Model for Atomic Sliding Friction. <i>Tribology Letters</i> , 2014 , 55, 363-369	2.8	8
67	Structure and decomposition pathways of D-(+)-tartaric acid on Pd(111). <i>Surface Science</i> , 2014 , 629, 132-138	3.8	10
66	Reactivity and Selectivity in the Au/Pd(111) Alloy-Catalyzed Vinyl Acetate Synthesis. <i>Catalysis Letters</i> , 2013 , 143, 756-762	2.8	9
65	Mechanistic Insights in the Catalytic Synthesis of Vinyl Acetate on Palladium and Gold/Palladium Alloy Surfaces. <i>Topics in Catalysis</i> , 2013 , 56, 1314-1332	2.3	23
64	Tribological Properties of 1-Alkenes on Copper Foils: Effect of Low-Coordination Surface Sites. <i>Tribology Letters</i> , 2013 , 51, 357-363	2.8	3
63	Pressure Dependence of the Shear Strengths of the Tungsten Carbide-Potassium Chloride Interface. <i>Tribology Letters</i> , 2013 , 50, 105-113	2.8	2
62	The desorption and reaction of 1-alkenes and 1-alkynes on Cu(111) and copper foils. <i>Surface Science</i> , 2013 , 616, 143-148	1.8	7
61	Linking gold nanoparticles with conductive 1,4-phenylene diisocyanide-gold oligomers. <i>Chemical Communications</i> , 2013 , 49, 1422-4	5.8	24
60	Relating Molecular Structure to Tribological Chemistry: Borate Esters on Copper. <i>Tribology Letters</i> , 2013 , 49, 21-29	2.8	12
59	The Kinetics of Shear-Induced Boundary Film Formation from Dimethyl Disulfide on Copper. <i>Tribology Letters</i> , 2013 , 49, 39-46	2.8	16
58	Identifying Molecular Species on Surfaces by Scanning Tunneling Microscopy: Methyl Pyruvate on Pd(111). <i>Journal of Physical Chemistry C</i> , 2013 , 117, 4505-4514	3.8	12
57	Shear-induced boundary film formation from dialkyl sulfides on copper. <i>Wear</i> , 2012 , 274-275, 183-187	3.5	17
56	On the film thickness dependence of shear strengths in sliding, boundary-layer friction. <i>Wear</i> , 2012 , 274-275, 281-285	3.5	4

55	Structure of the Au/Pd(100) Alloy Surface. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 4692-4697	3.8	7
54	Surface chemistry of isopropoxy tetramethyl dioxaborolane on Cu(111). <i>Langmuir</i> , 2012 , 28, 6322-7	4	7
53	The adsorption and reaction of vinyl acetate on Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2012 , 606, 1113-1119	1.8	6
52	The adsorption of acetic acid on clean and oxygen-covered Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2012 , 606, 1934-1941	1.8	16
51	An Infrared Spectroscopic and Temperature-Programmed Desorption Study of 1,1-Difluoroethylene on Clean and Hydrogen-Covered Pd(111). <i>Adsorption Science and Technology</i> , 2011 , 29, 595-602	3.6	
50	Stabilization of Carboxylate Surface Species on Pd(111). <i>Adsorption Science and Technology</i> , 2011 , 29, 603-611	3.6	6
49	Reaction Between Ethylene and Acetate Species on Clean and Oxygen-Covered Pd(100): Implications for the Vinyl Acetate Monomer Formation Pathway. <i>Catalysis Letters</i> , 2011 , 141, 266-270	2.8	12
48	Creation of Low-Coordination Gold Sites on Au(111) Surface by 1,4-phenylene Diisocyanide Adsorption. <i>Topics in Catalysis</i> , 2011 , 54, 20-25	2.3	35
47	Shear-Induced Surface-to-Bulk Transport at Room Temperature in a Sliding Metal/Metal Interface. <i>Tribology Letters</i> , 2011 , 41, 257-261	2.8	29
46	On the Pressure Dependence of Shear Strengths in Sliding, Boundary-Layer Friction. <i>Tribology Letters</i> , 2011 , 44, 67-73	2.8	13
45	Structure and Distribution of S-(1-Naphthyl)-ethylamine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 16488-16494	3.8	25
44	Low-temperature, shear-induced tribofilm formation from dimethyl disulfide on copper. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 795-800	9.5	35
43	Structure of Methyl Pyruvate and (1-Naphthyl)ethylamine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 8790-8797	3.8	22
42	The surface chemistry of diethyl disulfide on copper. <i>Surface Science</i> , 2011 , 605, 606-611	1.8	8
41	Carbon Monoxide Oxidation over Au/Pd(100) Model Alloy Catalysts. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 16909-16916	3.8	32
40	Coverage effects on the palladium-catalyzed synthesis of vinyl acetate: comparison between theory and experiment. <i>Journal of the American Chemical Society</i> , 2010 , 132, 2202-7	16.4	50
39	Identification of Adsorption Ensembles on Bimetallic Alloys. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 1875-1880	3.8	15
38	The surface chemistry of dimethyl disulfide on copper. <i>Langmuir</i> , 2010 , 26, 16375-80	4	29

37	One-dimensional supramolecular surface structures: 1,4-diisocyanobenzene on Au(111) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 11624-9	3.6	44
36	Kinetic Parameters for the Elementary Steps in the Palladium-Catalyzed Synthesis of Vinyl Acetate. <i>Catalysis Letters</i> , 2010 , 138, 135-142	2.8	13
35	Monte Carlo Simulations for Tomlinson Sliding Models for Non-Sinusoidal Periodic Potentials. <i>Tribology Letters</i> , 2010 , 39, 177-180	2.8	18
34	Adsorption of carbon monoxide Au/Pd(100) alloys in ultrahigh vacuum: Identification of adsorption sites. <i>Surface Science</i> , 2010 , 604, 136-143	1.8	25
33	The adsorption and reaction of 2-butanol on clean and oxygen-covered Pd(100). <i>Surface Science</i> , 2010 , 604, 1377-1387	1.8	9
32	Catalytic Chemistry of Hydrocarbon Conversion Reactions on Metallic Single Crystals 2010 , 1-28		
31	Structure and reaction pathways of methyl lactate on Pd(1 1 1). <i>Surface Science</i> , 2009 , 603, 2714-2720	1.8	6
30	Enantioselective Chemisorption on Model Chirally Modified Surfaces: 2-Butanol on η (1-Naphthyl)ethylamine/Pd(111). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 13877-13885	3.8	31
29	Structure and Reaction Pathways of Methyl Pyruvate on Pd(111). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 15298-15306	3.8	12
28	Ethene Adsorption and Decomposition on the Cu(410) Surface. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 20881-20889	3.8	18
27	Structure and Decomposition Pathways of Vinyl Acetate on Clean and Oxygen-Covered Pd(100). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 971-978	3.8	16
26	A new method for performing polarization modulation infrared reflection-adsorption spectroscopy of surfaces. <i>Applied Spectroscopy</i> , 2009 , 63, 369-72	3.1	12
25	Kinetic Monte Carlo theory of sliding friction. <i>Physical Review B</i> , 2009 , 80,	3.3	23
24	Ethylene decomposition at undercoordinated sites on Cu(410). <i>Journal of the American Chemical Society</i> , 2008 , 130, 12552-3	16.4	33
23	Enantioselective Chemisorption and Reactions on Model Chirally Modified Surfaces: 2-Butanol on l-Proline Templated Pd(111) Surfaces. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 6145-6150	3.8	24
22	Monte Carlo and density functional theory analysis of the distribution of gold and palladium atoms on AuPd(111) alloys. <i>Physical Review B</i> , 2008 , 77,	3.3	50
21	Surface and Tribological Chemistry of Water and Carbon Dioxide on Copper Surfaces. <i>Tribology Letters</i> , 2008 , 31, 167-176	2.8	9
20	Probing reaction pathways on model catalyst surfaces: Vinyl acetate synthesis and olefin metathesis. <i>Journal of Molecular Catalysis A</i> , 2008 , 281, 14-23		10

19	Surface segregation of gold for Au/Pd(111) alloys measured by low-energy electron diffraction and low-energy ion scattering. <i>Surface Science</i> , 2008 , 602, 1084-1091	1.8	45
18	The structure and reactivity of 2-butanol on Pd(111). <i>Surface Science</i> , 2008 , 602, 2264-2270	1.8	16
17	Enantioselective chemisorption of propylene oxide on a 2-butanol modified Pd(111) surface: the role of hydrogen-bonding interactions. <i>Journal of the American Chemical Society</i> , 2007 , 129, 15240-9	16.4	32
16	Formation and characterization of Au/Pd surface alloys on Pd(1 1 1). <i>Surface Science</i> , 2007 , 601, 1898-1908	1.8	83
15	Formation and decomposition of C3 metallacycles from ethylene and methylene on MoAl alloy thin films. <i>Journal of the American Chemical Society</i> , 2006 , 128, 7091-6	16.4	6
14	Structure and decomposition pathways of vinyl acetate on Pd(111). <i>Surface Science</i> , 2005 , 598, 263-275	1.8	32
13	Elucidation of the reaction mechanism for the palladium-catalyzed synthesis of vinyl acetate. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 4572-4	16.4	57
12	Elucidation of the Reaction Mechanism for the Palladium-Catalyzed Synthesis of Vinyl Acetate. <i>Angewandte Chemie</i> , 2005 , 117, 4648-4650	3.6	2
11	Hydrocarbon conversion on palladium catalysts. <i>Journal of Molecular Catalysis A</i> , 2005 , 228, 35-45		36
10	Probing enantioselective chemisorption in ultrahigh vacuum. <i>Journal of Molecular Catalysis A</i> , 2004 , 216, 215-221		24
9	Reaction of tributyl phosphite with oxidized iron: surface and tribological chemistry. <i>Langmuir</i> , 2004 , 20, 7557-68	4	43
8	A Comparative Investigation of Aryl Isocyanides Chemisorbed to Palladium and Gold: An ATR-IR Spectroscopic Study. <i>Langmuir</i> , 2004 , 20, 1732-1738	4	57
7	Vinyl acetate formation by the reaction of ethylene with acetate species on oxygen-covered Pd(111). <i>Journal of the American Chemical Society</i> , 2004 , 126, 15384-5	16.4	61
6	Enantioselective chemisorption on a chirally modified surface in ultrahigh vacuum: adsorption of propylene oxide on 2-butoxide-covered palladium(111). <i>Journal of the American Chemical Society</i> , 2002 , 124, 8984-9	16.4	100
5	Surface Chemistry and Extreme-Pressure Lubricant Properties of Dimethyl Disulfide. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 1703-1709	3.4	55
4	Palladium-Catalyzed Acetylene Cyclotrimerization: From Ultrahigh Vacuum to High-Pressure Catalysis. <i>Israel Journal of Chemistry</i> , 1998 , 38, 313-320	3.4	12
3	Determination of the bonding and orientation of ethylene on palladium(111) by near-edge x-ray absorption fine structure and photoelectron spectroscopy. <i>The Journal of Physical Chemistry</i> , 1990 , 94, 4236-4239		60
2	Discovery of a tilted form of benzene chemisorbed on Pd(111): As NEXAFS and photoemission investigation. <i>Surface Science</i> , 1990 , 232, 259-265	1.8	81

- 1 Low temperature catalytic chemistry of the Pd(111) surface: benzene and ethylene from acetylene.
Journal of the Chemical Society Chemical Communications, **1983**, 623