

Wilfred T Tysoe

List of Publications by Year in descending order

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132
all docs

132
docs citations

132
times ranked

1811
citing authors

#	ARTICLE	IF	CITATIONS
1	Reflection absorption infrared spectroscopy of the surface chemistry of furfural on Pd(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	3
2	Influence of the Nature and Orientation of the Terminal Group on the Tribochemical Reaction Rates of Carboxylic Acid Monolayers on Copper. Tribology Letters, 2022, 70, 1.	1.2	7
3	Adsorption Structure and Reactivity of a Putative Asymmetric Molecular Conductor; 4-Isocyanophenyl Disulfide on Au(111). Journal of Physical Chemistry C, 2022, 126, 6601-6611.	1.5	3
4	Prandtl–Tomlinson-Type Models for Coupled Molecular Sliding Friction: Chain-Length Dependence of Friction of Self-assembled Monolayers. Tribology Letters, 2022, 70, 1.	1.2	8
5	Anisotropy of Shear-Induced Mechanochemical Reaction Rates of Surface Adsorbates; Implications for Theoretical Models. Journal of Physical Chemistry C, 2022, 126, 11585-11593.	1.5	5
6	Influence of the terminal group on the thermal decomposition reactions of carboxylic acids on copper: nature of the carbonaceous film. Physical Chemistry Chemical Physics, 2021, 23, 17663-17671.	1.3	9
7	Surface chemistry at the solid–solid interface: mechanically induced reaction pathways of C ₈ carboxylic acid monolayers on copper. Physical Chemistry Chemical Physics, 2021, 23, 17803-17812.	1.3	13
8	Insights into the Mechanism of the Mechanochemical Formation of Metastable Phases. ACS Applied Materials & Interfaces, 2021, 13, 6785-6794.	4.0	11
9	Inducing High-Energy-Barrier Tribochemical Reaction Pathways; Acetic Acid Decomposition on Copper. Tribology Letters, 2021, 69, 1.	1.2	17
10	Binding of Oxygen on Single-Atom Sites on Au/Pd(100) Alloys with High Gold Coverages. Journal of Physical Chemistry C, 2021, 125, 9715-9729.	1.5	3
11	Surface Chemistry at the Solid–Solid Interface; Selectivity and Activity in Mechanochemical Reactions on Surfaces. Chemistry Methods, 2021, 1, 340-349.	1.8	1
12	Structure and reaction pathways of octanoic acid on copper. Surface Science, 2021, 711, 121875.	0.8	8
13	Adsorption and reaction pathways of 7-octenoic acid on copper. Physical Chemistry Chemical Physics, 2021, 23, 5834-5844.	1.3	8
14	Infrared spectroscopic measurements of the structure of organic thin films; furfural on Pd(111) and Au(111) surfaces. CrystEngComm, 2021, 23, 4534-4548.	1.3	8
15	Prandtl–Tomlinson-Type Models for Molecular Sliding Friction. Tribology Letters, 2021, 69, 1.	1.2	4
16	The reactivity, selectivity and structure of 2-butanol on clean and oxygen-covered Au/Pd(100) alloys. Surface Science, 2020, 694, 121556.	0.8	0
17	Adsorption and Reaction of Trimethyl and Triethyl Phosphite on Fe ₃ O ₄ by Density Functional Theory. Tribology Letters, 2020, 68, 1.	1.2	0
18	Surface structure of 1,4-benzenedithiol on Au(111). Surface Science, 2020, 702, 121717.	0.8	7

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19	Mechanism of the Accelerated Water Formation Reaction under Interfacial Confinement. ACS Catalysis, 2020, 10, 6119-6128.	5.5	20
20	Measuring and modelling mechanochemical reaction kinetics. Chemical Communications, 2020, 56, 7730-7733.	2.2	31
21	Tribochemical Mechanisms of Trimethyl and Triethyl Phosphite on Oxidized Iron in Ultrahigh Vacuum. Tribology Letters, 2019, 67, 1.	1.2	7
22	Chemical Self-Assembly Strategies for Designing Molecular Electronic Circuits: Demonstration of Concept. Journal of Physical Chemistry C, 2019, 123, 10398-10405.	1.5	3
23	The structure of alanine anionic-zwitterionic dimers on Pd(111); formation of salt bridges. Surface Science, 2019, 679, 79-85.	0.8	1
24	Combining IR Spectroscopy and Monte Carlo Simulations to Identify CO Adsorption Sites on Bimetallic Alloys. Journal of Physical Chemistry C, 2019, 123, 8406-8420.	1.5	8
25	Chemical self-assembly strategies for designing molecular electronic circuits. Chemical Communications, 2019, 55, 13872-13875.	2.2	6
26	Adsorption and Structure of Chiral Epoxides on Pd(111): Propylene Oxide and Glycidol. Journal of Physical Chemistry C, 2018, 122, 1215-1222.	1.5	1
27	Effect of Coverage on Catalytic Selectivity and Activity on Metallic and Alloy Catalysts; Vinyl Acetate Monomer Synthesis. Topics in Catalysis, 2018, 61, 722-735.	1.3	10
28	Characterization of the Tribological Behavior of the Textured Steel Surfaces Fabricated by Photolithographic Etching. Tribology Letters, 2018, 66, 1.	1.2	25
29	Development of a ReaxFF Force Field for Cu/S/C/H and Reactive MD Simulations of Methyl Thiolate Decomposition on Cu (100). Journal of Physical Chemistry B, 2018, 122, 888-896.	1.2	22
30	Vinyl Acetate Formation on Au/Pd(100) Alloy Surfaces. Catalysis Letters, 2018, 148, 79-89.	1.4	3
31	Spontaneous self-assembly of conductive molecular linkages between gold nanoelectrodes from aryl diisocyanides. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	3
32	Easy alloying on flat carbides. Nature Catalysis, 2018, 1, 316-317.	16.1	5
33	In-Situ Measurement of Tribochemical Processes in Ultrahigh Vacuum. Microtechnology and MEMS, 2018, , 129-158.	0.2	0
34	Adsorption, Assembly, and Oligomerization of Aspartic Acid on Pd(111). Journal of Physical Chemistry C, 2017, 121, 13239-13248.	1.5	3
35	Kinetics and Mechanism of Vinyl Acetate Monomer Synthesis on Pd(100) Model Catalysts. Catalysis Letters, 2017, 147, 1941-1954.	1.4	3
36	Modeling Mechanochemical Reaction Mechanisms. ACS Applied Materials & Interfaces, 2017, 9, 26531-26538.	4.0	25

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37	On Stress-Induced Tribochemical Reaction Rates. <i>Tribology Letters</i> , 2017, 65, 1.	1.2	62
38	Adsorption and Oligomerization of 1,3-Phenylene Diisocyanide on Au(111). <i>Journal of Physical Chemistry C</i> , 2016, 120, 9270-9275.	1.5	5
39	Local and Extended Structures of d -Tartaric Acid on Pd(111). <i>Journal of Physical Chemistry C</i> , 2016, 120, 2309-2319.	1.5	6
40	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.	5.8	33
41	Surface chemistry and structures of 1,4-phenylene diisocyanide on gold films from solution. <i>Surface Science</i> , 2016, 649, 56-59.	0.8	7
42	Identification of the Shear Plane During Sliding of Solid Boundary Films: Potassium Chloride Films on Iron. <i>Tribology Letters</i> , 2016, 62, 1.	1.2	2
43	In Situ Measurements of Boundary Film Formation Pathways and Kinetics: Dimethyl and Diethyl Disulfide on Copper. <i>Tribology Letters</i> , 2016, 62, 1.	1.2	27
44	Kinetics of low-temperature CO oxidation on Au(111). <i>Surface Science</i> , 2016, 648, 236-241.	0.8	7
45	The adsorption of ethylene on Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2016, 646, 65-71.	0.8	8
46	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.	1.5	9
47	Shear-Induced Mechanochemistry: Pushing Molecules Around. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7115-7123.	1.5	65
48	Chemisorptive enantioselectivity of chiral epoxides on tartaric-acid modified Pd(111): three-point bonding. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5450-5458.	1.3	10
49	On the Commonality Between Theoretical Models for Fluid and Solid Friction, Wear and Tribochemistry. <i>Tribology Letters</i> , 2015, 59, 1.	1.2	99
50	Formation of Induced-Fit Chiral Templates by Amino Acid-Functionalized Pd(111) Surfaces. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3556-3563.	1.5	12
51	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.	2.1	6
52	Surface Chemistry for Enantioselective Catalysis. <i>Catalysis Letters</i> , 2015, 145, 220-232.	1.4	86
53	Pressure dependence of the interfacial structure of potassium chloride films on iron. <i>Thin Solid Films</i> , 2015, 593, 150-157.	0.8	4
54	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.	1.5	20

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55	Influence of Potential Shape on Constant-Force Atomic-Scale Sliding Friction Models. <i>Tribology Letters</i> , 2015, 60, 1.	1.2	14
56	Structure and decomposition pathways of D-(âˆ™)-tartaric acid on Pd(111). <i>Surface Science</i> , 2014, 629, 132-138.	0.8	11
57	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.	3.1	28
58	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.	1.5	26
59	Shear and thermal effects in boundary film formation during sliding. <i>RSC Advances</i> , 2014, 4, 24059-24066.	1.7	18
60	Understanding and Controlling the 1,4-Phenylene Diisocyanideâ€™Gold Oligomer Formation Pathways. <i>Journal of Physical Chemistry C</i> , 2014, 118, 20899-20907.	1.5	17
61	Determination of Adsorbate Structures from 1,4-Phenylene Diisocyanide on Gold. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3577-3581.	2.1	17
62	Temperature Dependences in the Tomlinson/Prandtl Model for Atomic Sliding Friction. <i>Tribology Letters</i> , 2014, 55, 363-369.	1.2	11
63	Reactivity and Selectivity in the Au/Pd(111) Alloy-Catalyzed Vinyl Acetate Synthesis. <i>Catalysis Letters</i> , 2013, 143, 756-762.	1.4	10
64	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.	1.3	29
65	Tribological Properties of 1-Alkenes on Copper Foils: Effect of Low-Coordination Surface Sites. <i>Tribology Letters</i> , 2013, 51, 357-363.	1.2	4
66	Pressure Dependence of the Shear Strengths of the Tungsten Carbideâ€™Potassium Chloride Interface. <i>Tribology Letters</i> , 2013, 50, 105-113.	1.2	2
67	The desorption and reaction of 1-alkenes and 1-alkynes on Cu(111) and copper foils. <i>Surface Science</i> , 2013, 616, 143-148.	0.8	7
68	Linking gold nanoparticles with conductive 1,4-phenylene diisocyanideâ€™gold oligomers. <i>Chemical Communications</i> , 2013, 49, 1422.	2.2	25
69	Relating Molecular Structure to Tribological Chemistry: Borate Esters on Copper. <i>Tribology Letters</i> , 2013, 49, 21-29.	1.2	14
70	The Kinetics of Shear-Induced Boundary Film Formation from Dimethyl Disulfide on Copper. <i>Tribology Letters</i> , 2013, 49, 39-46.	1.2	25
71	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.	1.5	15
72	Structure of the Au/Pd(100) Alloy Surface. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4692-4697.	1.5	8

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73	Surface Chemistry of Isopropoxy Tetramethyl Dioxaborolane on Cu(111). <i>Langmuir</i> , 2012, 28, 6322-6327.	1.6	7
74	The adsorption and reaction of vinyl acetate on Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2012, 606, 1113-1119.	0.8	8
75	The adsorption of acetic acid on clean and oxygen-covered Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2012, 606, 1934-1941.	0.8	17
76	Shear-induced boundary film formation from dialkyl sulfides on copper. <i>Wear</i> , 2012, 274-275, 183-187.	1.5	23
77	On the film thickness dependence of shear strengths in sliding, boundary-layer friction. <i>Wear</i> , 2012, 274-275, 281-285.	1.5	4
78	Structure and Distribution of S^{\pm} -(1-Naphthyl)-ethylamine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 16488-16494.	1.5	28
79	Low-Temperature, Shear-Induced Tribofilm Formation from Dimethyl Disulfide on Copper. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 795-800.	4.0	45
80	Structure of Methyl Pyruvate and S^{\pm} -(1-Naphthyl)ethylamine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 8790-8797.	1.5	24
81	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.	1.5	0
82	Stabilization of Carboxylate Surface Species on Pd(111). <i>Adsorption Science and Technology</i> , 2011, 29, 603-611.	1.5	7
83	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.	1.4	14
84	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.	1.3	36
85	Shear-Induced Surface-to-Bulk Transport at Room Temperature in a Sliding Metal-Metal Interface. <i>Tribology Letters</i> , 2011, 41, 257-261.	1.2	37
86	On the Pressure Dependence of Shear Strengths in Sliding, Boundary-Layer Friction. <i>Tribology Letters</i> , 2011, 44, 67-73.	1.2	15
87	The surface chemistry of diethyl disulfide on copper. <i>Surface Science</i> , 2011, 605, 606-611.	0.8	11
88	Kinetic Parameters for the Elementary Steps in the Palladium-Catalyzed Synthesis of Vinyl Acetate. <i>Catalysis Letters</i> , 2010, 138, 135-142.	1.4	14
89	Monte Carlo Simulations for Tomlinson Sliding Models for Non-Sinusoidal Periodic Potentials. <i>Tribology Letters</i> , 2010, 39, 177-180.	1.2	24
90	Adsorption of carbon monoxide Au/Pd(100) alloys in ultrahigh vacuum: Identification of adsorption sites. <i>Surface Science</i> , 2010, 604, 136-143.	0.8	28

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91	The adsorption and reaction of 2-butanol on clean and oxygen-covered Pd(100). <i>Surface Science</i> , 2010, 604, 1377-1387.	0.8	11
92	Carbon Monoxide Oxidation over Au/Pd(100) Model Alloy Catalysts. <i>Journal of Physical Chemistry C</i> , 2010, 114, 16909-16916.	1.5	33
93	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, 2202-2207.	6.6	59
94	Identification of Adsorption Ensembles on Bimetallic Alloys. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1875-1880.	1.5	16
95	The Surface Chemistry of Dimethyl Disulfide on Copper. <i>Langmuir</i> , 2010, 26, 16375-16380.	1.6	36
96	One-dimensional supramolecular surface structures: 1,4-diisocyanobenzene on Au(111) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11624.	1.3	44
97	Catalytic Chemistry of Hydrocarbon Conversion Reactions on Metallic Single Crystals. , 2010, , 1-28.		0
98	Structure and reaction pathways of methyl lactate on Pd(111). <i>Surface Science</i> , 2009, 603, 2714-2720.	0.8	8
99	Enantioselective Chemisorption on Model Chirally Modified Surfaces: 2-Butanol on β -(1-Naphthyl)ethylamine/Pd(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 13877-13885.	1.5	34
100	Structure and Reaction Pathways of Methyl Pyruvate on Pd(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 15298-15306.	1.5	13
101	Ethene Adsorption and Decomposition on the Cu(410) Surface. <i>Journal of Physical Chemistry C</i> , 2009, 113, 20881-20889.	1.5	20
102	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.	1.5	16
103	A New Method for Performing Polarization Modulation Infrared Reflection-Adsorption Spectroscopy of Surfaces. <i>Applied Spectroscopy</i> , 2009, 63, 369-372.	1.2	14
104	Kinetic Monte Carlo theory of sliding friction. <i>Physical Review B</i> , 2009, 80, .	1.1	26
105	Surface and Tribological Chemistry of Water and Carbon Dioxide on Copper Surfaces. <i>Tribology Letters</i> , 2008, 31, 167-176.	1.2	9
106	Probing reaction pathways on model catalyst surfaces: Vinyl acetate synthesis and olefin metathesis. <i>Journal of Molecular Catalysis A</i> , 2008, 281, 14-23.	4.8	10
107	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.	0.8	47
108	The structure and reactivity of 2-butanol on Pd(111). <i>Surface Science</i> , 2008, 602, 2264-2270.	0.8	18

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109	Ethylene Decomposition at Undercoordinated Sites on Cu(410). Journal of the American Chemical Society, 2008, 130, 12552-12553.	6.6	37
110	Enantioselective Chemisorption and Reactions on Model Chirally Modified Surfaces: 2-Butanol on $\langle 111 \rangle$ -Proline Templated Pd(111) Surfaces. Journal of Physical Chemistry C, 2008, 112, 6145-6150. Monte Carlo and density functional theory analysis of the distribution of gold and palladium atoms	1.5	24
111	on $\langle 111 \rangle$ surfaces. $\langle \text{Au} \rangle \cdot \langle \text{Pd} \rangle$ Monte Carlo and density functional theory analysis of the distribution of gold and palladium atoms. Physical Review B, 2008, 77.	1.1	52
112	Enantioselective Chemisorption of Propylene Oxide on a 2-Butanol Modified Pd(111) Surface: The Role of Hydrogen-Bonding Interactions. Journal of the American Chemical Society, 2007, 129, 15240-15249.	6.6	32
113	Formation and characterization of Au/Pd surface alloys on Pd(111). Surface Science, 2007, 601, 1898-1908.	0.8	88
114	Catalysis fundamentals. Nano Today, 2007, 2, 53.	6.2	1
115	Formation and Decomposition of C3 Metallacycles from Ethylene and Methylene on MoAl Alloy Thin Films. Journal of the American Chemical Society, 2006, 128, 7091-7096.	6.6	7
116	Structure and decomposition pathways of vinyl acetate on Pd(111). Surface Science, 2005, 598, 263-275.	0.8	39
117	Elucidation of the Reaction Mechanism for the Palladium-Catalyzed Synthesis of Vinyl Acetate. Angewandte Chemie - International Edition, 2005, 44, 4572-4574.	7.2	63
118	Hydrocarbon Conversion on Palladium Catalysts. ChemInform, 2005, 36, no.	0.1	0
119	Hydrocarbon conversion on palladium catalysts. Journal of Molecular Catalysis A, 2005, 228, 35-45.	4.8	42
120	Probing enantioselective chemisorption in ultrahigh vacuum. Journal of Molecular Catalysis A, 2004, 216, 215-221.	4.8	24
121	Reaction of Tributyl Phosphite with Oxidized Iron: A Surface and Tribological Chemistry. Langmuir, 2004, 20, 7557-7568.	1.6	44
122	A Comparative Investigation of Aryl Isocyanides Chemisorbed to Palladium and Gold: An ATR-IR Spectroscopic Study. Langmuir, 2004, 20, 1732-1738.	1.6	58
123	Vinyl Acetate Formation by the Reaction of Ethylene with Acetate Species on Oxygen-Covered Pd(111). Journal of the American Chemical Society, 2004, 126, 15384-15385.	6.6	71
124	Enantioselective Chemisorption on a Chirally Modified Surface in Ultrahigh Vacuum: Adsorption of Propylene Oxide on 2-Butoxide-Covered Palladium(111). Journal of the American Chemical Society, 2002, 124, 8984-8989.	6.6	105
125	Surface Chemistry and Extreme-Pressure Lubricant Properties of Dimethyl Disulfide. Journal of Physical Chemistry B, 1998, 102, 1703-1709.	1.2	67
126	Palladium-Catalyzed Acetylene Cyclotrimerization: From Ultrahigh Vacuum to High-Pressure Catalysis. Israel Journal of Chemistry, 1998, 38, 313-320.	1.0	14

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127	Determination of the bonding and orientation of ethylene on palladium(111) by near-edge x-ray absorption fine structure and photoelectron spectroscopy. The Journal of Physical Chemistry, 1990, 94, 4236-4239.	2.9	64
128	Discovery of a tilted form of benzene chemisorbed on Pd(111): As NEXAFS and photoemission investigation. Surface Science, 1990, 232, 259-265.	0.8	85
129	Low temperature catalytic chemistry of the Pd(111) surface: benzene and ethylene from acetylene. Journal of the Chemical Society Chemical Communications, 1983, , 623.	2.0	90