Wilfred T Tysoe

List of Publications by Citations

Source: https://exaly.com/author-pdf/6843234/wilfred-t-tysoe-publications-by-citations.pdf

Version: 2024-04-19

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

avg, IF

5.26 L-index

#	Paper	IF	Citations
126	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
125	Low temperature catalytic chemistry of the Pd(111) surface: benzene and ethylene from acetylene. Journal of the Chemical Society Chemical Communications, 1983 , 623		85
124	Formation and characterization of Au/Pd surface alloys on Pd(1 1 1). Surface Science, 2007, 601, 1898-1	90&	83
123	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
122	On the Commonality Between Theoretical Models for Fluid and Solid Friction, Wear and Tribochemistry. <i>Tribology Letters</i> , 2015 , 59, 1	2.8	79
121	Surface Chemistry for Enantioselective Catalysis. <i>Catalysis Letters</i> , 2015 , 145, 220-232	2.8	71
120	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
119	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
118	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
117	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
116	Surface Chemistry and Extreme-Pressure Lubricant Properties of Dimethyl Disulfide. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 1703-1709	3.4	55
115	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
114	Monte Carlo and density functional theory analysis of the distribution of gold and palladium atoms on Au P d(111) alloys. <i>Physical Review B</i> , 2008 , 77,	3.3	50
113	Shear-Induced Mechanochemistry: Pushing Molecules Around. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 7115-7123	3.8	48
112	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
111	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
110	Reaction of tributyl phosphite with oxidized iron: surface and tribological chemistry. <i>Langmuir</i> , 2004 , 20, 7557-68	4	43

109	On Stress-Induced Tribochemical Reaction Rates. <i>Tribology Letters</i> , 2017 , 65, 1	2.8	36
108	Hydrocarbon conversion on palladium catalysts. <i>Journal of Molecular Catalysis A</i> , 2005 , 228, 35-45		36
107	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
106	Low-temperature, shear-induced tribofilm formation from dimethyl disulfide on copper. <i>ACS Applied Materials & Discrete Action (Compared Materials</i>	9.5	35
105	Ethylene decomposition at undercoordinated sites on Cu(410). <i>Journal of the American Chemical Society</i> , 2008 , 130, 12552-3	16.4	33
104	Carbon Monoxide Oxidation over Au/Pd(100) Model Alloy Catalysts <i>Journal of Physical Chemistry C</i> , 2010 , 114, 16909-16916	3.8	32
103	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
102	Structure and decomposition pathways of vinyl acetate on Pd(111). Surface Science, 2005, 598, 263-275	1.8	32
101	Enantioselective Chemisorption on Model Chirally Modified Surfaces: 2-Butanol on £(1-Naphthyl)ethylamine/Pd(111). <i>Journal of Physical Chemistry C</i> , 2009 , 113, 13877-13885	3.8	31
100	Shear-Induced Surface-to-Bulk Transport at Room Temperature in a Sliding MetalMetal Interface. <i>Tribology Letters</i> , 2011 , 41, 257-261	2.8	29
99	The surface chemistry of dimethyl disulfide on copper. <i>Langmuir</i> , 2010 , 26, 16375-80	4	29
98	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
97	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
96	Structure and Distribution of S-E(1-Naphthyl)-ethylamine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 16488-16494	3.8	25
95	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
94	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
93	Linking gold nanoparticles with conductive 1,4-phenylene diisocyanide-gold oligomers. <i>Chemical Communications</i> , 2013 , 49, 1422-4	5.8	24
92	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

91	Probing enantioselective chemisorption in ultrahigh vacuum. <i>Journal of Molecular Catalysis A</i> , 2004 , 216, 215-221		24
90	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
89	Kinetic Monte Carlo theory of sliding friction. <i>Physical Review B</i> , 2009 , 80,	3.3	23
88	Structure of Methyl Pyruvate and E(1-Naphthyl)ethylamine on Pd(111). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 8790-8797	3.8	22
87	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
86	Ethene Adsorption and Decomposition on the Cu(410) Surface. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 20881-20889	3.8	18
85	Monte Carlo Simulations for Tomlinson Sliding Models for Non-Sinusoidal Periodic Potentials. <i>Tribology Letters</i> , 2010 , 39, 177-180	2.8	18
84	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, 23042-2305	;≱.8	17
83	Characterization of the Tribological Behavior of the Textured Steel Surfaces Fabricated by Photolithographic Etching. <i>Tribology Letters</i> , 2018 , 66, 1	2.8	17
82	Understanding and Controlling the 1,4-Phenylene Diisocyanideliold Oligomer Formation Pathways. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 20899-20907	3.8	17
81	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
80	Shear-induced boundary film formation from dialkyl sulfides on copper. <i>Wear</i> , 2012 , 274-275, 183-187	3.5	17
79	Shear and thermal effects in boundary film formation during sliding. RSC Advances, 2014, 4, 24059-2406	6.7	16
78	The Kinetics of Shear-Induced Boundary Film Formation from Dimethyl Disulfide on Copper. <i>Tribology Letters</i> , 2013 , 49, 39-46	2.8	16
77	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
76	Structure and Decomposition Pathways of Vinyl Acetate on Clean and Oxygen-Covered Pd(100). Journal of Physical Chemistry C, 2009 , 113, 971-978	3.8	16
75	The structure and reactivity of 2-butanol on Pd(111). Surface Science, 2008, 602, 2264-2270	1.8	16
74	Measuring and modelling mechanochemical reaction kinetics. <i>Chemical Communications</i> , 2020 , 56, 7730	-₹.833	15

Modeling Mechanochemical Reaction Mechanisms. ACS Applied Materials & Interfaces, 2017, 9, 26534.-265385 73 Identification of Adsorption Ensembles on Bimetallic Alloys. Journal of Physical Chemistry C, 2010, 3.8 72 15 114, 1875-1880 Development of a ReaxFF Force Field for Cu/S/C/H and Reactive MD Simulations of Methyl Thiolate 71 3.4 14 Decomposition on Cu (100). Journal of Physical Chemistry B, 2018, 122, 888-896 On the Pressure Dependence of Shear Strengths in Sliding, Boundary-Layer Friction. Tribology 70 2.8 13 Letters, **2011**, 44, 67-73 Kinetic Parameters for the Elementary Steps in the Palladium-Catalyzed Synthesis of Vinyl Acetate. 2.8 69 13 Catalysis Letters, 2010, 138, 135-142 Influence of Potential Shape on Constant-Force Atomic-Scale Sliding Friction Models. Tribology 68 2.8 12 Letters, 2015, 60, 1 Relating Molecular Structure to Tribological Chemistry: Borate Esters on Copper. Tribology Letters, 67 2.8 12 2013, 49, 21-29 Identifying Molecular Species on Surfaces by Scanning Tunneling Microscopy: Methyl Pyruvate on 66 3.8 12 Pd(111). Journal of Physical Chemistry C, 2013, 117, 4505-4514 Reaction Between Ethylene and Acetate Species on Clean and Oxygen-Covered Pd(100): 65 2.8 12 Implications for the Vinyl Acetate Monomer Formation Pathway. Catalysis Letters, 2011, 141, 266-270 Structure and Reaction Pathways of Methyl Pyruvate on Pd(111). Journal of Physical Chemistry C, 3.8 64 **2009**, 113, 15298-15306 A new method for performing polarization modulation infrared reflection-adsorption spectroscopy 63 3.1 12 of surfaces. Applied Spectroscopy, 2009, 63, 369-72 Palladium-Catalyzed Acetylene Cyclotrimerization: From Ultrahigh Vacuum to High-Pressure 62 3.4 Catalysis. Israel Journal of Chemistry, 1998, 38, 313-320 Formation of Induced-Fit Chiral Templates by Amino Acid-Functionalized Pd(111) Surfaces. Journal 61 3.8 11 of Physical Chemistry C, **2015**, 119, 3556-3563 Structure and decomposition pathways of D-(∏-tartaric acid on Pd(111). Surface Science, 2014, 629, 132-13.8 60 10 Probing reaction pathways on model catalyst surfaces: Vinyl acetate synthesis and olefin 59 10 metathesis. Journal of Molecular Catalysis A, 2008, 281, 14-23 Mechanism of the Accelerated Water Formation Reaction under Interfacial Confinement. ACS 58 9 13.1 Catalysis, 2020, 10, 6119-6128 Reactivity and Selectivity in the Au/Pd(111) Alloy-Catalyzed Vinyl Acetate Synthesis. Catalysis 2.8 57 9 Letters, 2013, 143, 756-762 Structural Changes in Self-Catalyzed Adsorption of Carbon Monoxide on 1,4-Phenylene 56 3.8 9 Diisocyanide Modified Au(111). Journal of Physical Chemistry C, 2015, 119, 18317-18325

55	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
54	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
53	Surface and Tribological Chemistry of Water and Carbon Dioxide on Copper Surfaces. <i>Tribology Letters</i> , 2008 , 31, 167-176	2.8	9
52	Temperature Dependences in the Tomlinson/Prandtl Model for Atomic Sliding Friction. <i>Tribology Letters</i> , 2014 , 55, 363-369	2.8	8
51	The surface chemistry of diethyl disulfide on copper. Surface Science, 2011, 605, 606-611	1.8	8
50	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
49	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
48	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
47	Structure of the Au/Pd(100) Alloy Surface. Journal of Physical Chemistry C, 2012, 116, 4692-4697	3.8	7
46	Surface chemistry of isopropoxy tetramethyl dioxaborolane on Cu(111). <i>Langmuir</i> , 2012 , 28, 6322-7	4	7
45	Inducing High-Energy-Barrier Tribochemical Reaction Pathways; Acetic Acid Decomposition on Copper. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	7
44	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
43	The adsorption and reaction of vinyl acetate on Au/Pd(100) alloy surfaces. <i>Surface Science</i> , 2012 , 606, 1113-1119	1.8	6
42	Stabilization of Carboxylate Surface Species on Pd(111). <i>Adsorption Science and Technology</i> , 2011 , 29, 603-611	3.6	6
41	Structure and reaction pathways of methyl lactate on Pd(1 1 1). Surface Science, 2009, 603, 2714-2720	1.8	6
40	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
39	Local and Extended Structures of d-(PTartaric Acid on Pd(111). <i>Journal of Physical Chemistry C</i> , 2016 , 120, 2309-2319	3.8	6
38	Adsorption and reaction pathways of 7-octenoic acid on copper. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 5834-5844	3.6	6

37	The adsorption of ethylene on Au/Pd(100) alloy surfaces. Surface Science, 2016, 646, 65-71	1.8	5
36	Tribochemical Mechanisms of Trimethyl and Triethyl Phosphite on Oxidized Iron in Ultrahigh Vacuum. <i>Tribology Letters</i> , 2019 , 67, 1	2.8	5
35	Chemical self-assembly strategies for designing molecular electronic circuits. <i>Chemical Communications</i> , 2019 , 55, 13872-13875	5.8	5
34	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
33	Insights into the Mechanism of the Mechanochemical Formation of Metastable Phases. <i>ACS Applied Materials & Amp; Interfaces</i> , 2021 , 13, 6785-6794	9.5	5
32	Structure and reaction pathways of octanoic acid on copper. Surface Science, 2021, 711, 121875	1.8	5
31	Kinetics of low-temperature CO oxidation on Au(111). Surface Science, 2016, 648, 236-241	1.8	4
30	On the film thickness dependence of shear strengths in sliding, boundary-layer friction. <i>Wear</i> , 2012 , 274-275, 281-285	3.5	4
29	Surface structure of 1,4-benzenedithiol on Au(111). Surface Science, 2020, 702, 121717	1.8	4
28	Adsorption, Assembly, and Oligomerization of Aspartic Acid on Pd(111). <i>Journal of Physical Chemistry C</i> , 2017 , 121, 13239-13248	3.8	3
27	Pressure dependence of the interfacial structure of potassium chloride films on iron. <i>Thin Solid Films</i> , 2015 , 593, 150-157	2.2	3
26	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
25	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
24	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
23	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
22	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
21	Pressure Dependence of the Shear Strengths of the Tungsten Carbide P otassium Chloride Interface. <i>Tribology Letters</i> , 2013 , 50, 105-113	2.8	2
20	Kinetics and Mechanism of Vinyl Acetate Monomer Synthesis on Pd(100) Model Catalysts. <i>Catalysis Letters</i> , 2017 , 147, 1941-1954	2.8	2

19	Elucidation of the Reaction Mechanism for the Palladium-Catalyzed Synthesis of Vinyl Acetate. <i>Angewandte Chemie</i> , 2005 , 117, 4648-4650	3.6	2
18	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
17	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
16	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
15	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
14	Prandtllomlinson-Type Models for Molecular Sliding Friction. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	1
13	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
12	Surface Chemistry at the Solid-Solid Interface; Selectivity and Activity in Mechanochemical Reactions on Surfaces. <i>Chemistry Methods</i> , 2021 , 1, 340-349		1
11	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
10	Vinyl Acetate Formation on Au/Pd(100) Alloy Surfaces. <i>Catalysis Letters</i> , 2018 , 148, 79-89	2.8	1
9	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	O
8	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	O
7	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
6	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	
5	In-Situ Measurement of Tribochemical Processes in Ultrahigh Vacuum. <i>Microtechnology and MEMS</i> , 2018 , 129-158	0.6	
4	Catalytic Chemistry of Hydrocarbon Conversion Reactions on Metallic Single Crystals 2010 , 1-28		
3	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	
2	Adsorption and Reaction of Trimethyl and Triethyl Phosphite on Fe3O4 by Density Functional Theory. <i>Tribology Letters</i> , 2020 , 68, 1	2.8	

Prandtllomlinson-Type Models for Coupled Molecular Sliding Friction: Chain-Length Dependence of Friction of Self-assembled Monolayers. *Tribology Letters*, **2022**, 70, 1

2.8