Assocâ€prof Ludo B F Juurlink

List of Publications by Year
in descending order

55 papers	1,080 citations	394421 19 h-index	454955 30 g-index
56 all docs	56 docs citations	56 times ranked	1194 citing authors

#	Article	IF	Citations
1	An Inexpensive 3D Printed Periscope-Type Smartphone-Based Spectrophotometer for Emission, Absorption, and Fluorescence Spectrometry. Journal of Chemical Education, 2022, 99, 2168-2174.	2.3	9
2	Macroscopic and Microscopic Wettability of Graphene. Langmuir, 2021, 37, 4049-4055.	3.5	15
3	Recent advances in the use of curved single crystal surfaces. Progress in Surface Science, 2021, 96, 100627.	8.3	12
4	Structural Inhibition of Silver Surface Oxidation. Journal of Physical Chemistry C, 2021, 125, 14702-14708.	3.1	4
5	Absolute dissociation cross sections for D2 dissociation on Pt steps. Chemical Physics Letters, 2021, 776, 138679.	2.6	5
6	Two Design Principles for the Design of Demonstrations to Enhance Structureâ€“Property Reasoning. Education Sciences, 2021, 11, 504.	2.6	2
7	Oxygen-induced surface reconstructions on curved Ag(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	6
8	IR spectroscopic characterization of the co-adsorption of CO₂ and H₂ onto cationic Cu_n⁺ clusters. Physical Chemistry Chemical Physics, 2021, 23, 26661-26673.	2.8	8
9	Chiral Surface Characterisation and Reactivity Toward Hâ€“D Exchange of a Curved Platinum Crystal. Topics in Catalysis, 2020, 63, 1558-1568.	2.8	3
10	Scaling Platinumâ€Catalyzed Hydrogen Dissociation on Corrugated Surfaces. Angewandte Chemie, 2020, 132, 21159-21165.	2.0	1
11	Scaling Platinumâ€Catalyzed Hydrogen Dissociation on Corrugated Surfaces. Angewandte Chemie - International Edition, 2020, 59, 20973-20979.	13.8	11
12	Elucidation of temperature-programmed desorption of high-coverage hydrogen on Pt(211), Pt(221), Pt(533) and Pt(553) based on density functional theory calculations. Physical Chemistry Chemical Physics, 2019, 21, 17142-17151.	2.8	10
13	Heterogeneous Catalytic Oxidation of Ammonia by Various Transition Metals. Journal of Chemical Education, 2019, 96, 2266-2270.	2.3	5
14	It's not just the defects â€“ a curved crystal study of H₂O desorption from Ag. Physical Chemistry Chemical Physics, 2019, 21, 15422-15430.	2.8	7
15	Steps on Pt stereodynamically filter sticking of O ₂. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13862-13866.	7.1	21
16	Site-specific reactivity of molecules with surface defectsâ€”the case of H ₂ dissociation on Pt. Science, 2019, 363, 155-157.	12.6	72
17	Transferability of the Specific Reaction Parameter Density Functional for H2 + Pt(111) to H2 + Pt(211). Journal of Physical Chemistry C, 2019, 123, 2973-2986.	3.1	18
18	Anomalous Dependence of the Reactivity on the Presence of Steps: Dissociation of D₂ on Cu(211). Journal of Physical Chemistry Letters, 2018, 9, 170-175.	4.6	27

#	Article	IF	Citations
19	Stepped surfaces. Journal of Physics Condensed Matter, 2018, 30, 090301.	1.8	3
20	A molecular beam study of D2 dissociation on Pt(1â€¯1â€¯1): Testing SRP-DFT calculations. Chemical Physics Letters, 2018, 706, 680-683.	2.6	11
21	Hydrogen adsorption and desorption from Cu(111) and Cu(211). Physical Chemistry Chemical Physics, 2018, 20, 22477-22488.	2.8	26
22	Heterogeneous Catalytic Oxidation of Simple Alcohols by Transition Metals. Journal of Chemical Education, 2017, 94, 1285-1287.	2.3	10
23	Step-type and step-density influences on CO adsorption probed by reflection absorption infrared spectroscopy using a curved Pt(1 1 1) surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	2.1	16
24	Exposure of Pt(5â€‰5â€‰3) and Rh(1â€‰1â€‰1) to atomic and molecular oxygen: do defects enhance subsurface oxygen formation?. Journal of Physics Condensed Matter, 2017, 29, 164002.	1.8	9
25	Misconceptions in the Exploding Flask Demonstration Resolved through Studentsâ€™ Critical Thinking. Journal of Chemical Education, 2017, 94, 1209-1216.	2.3	4
26	Hydrophilic Interaction Between Low-Coordinated Au and Water: H₂O/Au(310) Studied with TPD and XPS. Journal of Physical Chemistry C, 2016, 120, 8693-8703.	3.1	23
27	Surface Structure Dependence in Desorption and Crystallization of Thin Interfacial Water Films on Platinum. Journal of Physical Chemistry Letters, 2016, 7, 1682-1685.	4.6	13
28	Step-Type Selective Oxidation of Platinum Surfaces. Journal of Physical Chemistry C, 2016, 120, 22927-22935.	3.1	17
29	A Comparison of CO Oxidation by Hydroxyl and Atomic Oxygen from Water on Low-Coordinated Au Atoms. ACS Catalysis, 2016, 6, 7051-7058.	11.2	8
30	Double-Stranded Water on Stepped Platinum Surfaces. Physical Review Letters, 2016, 116, 136101.	7.8	45
31	Coverage-dependent adsorption and desorption of oxygen on Pd(100). Journal of Chemical Physics, 2016, 144, 244706.	3.0	8
32	Initial stages of water solvation of stepped platinum surfaces. Physical Chemistry Chemical Physics, 2016, 18, 3416-3422.	2.8	32
33	The molecular dynamics of adsorption and dissociation of O2 on Pt(553). Journal of Chemical Physics, 2015, 143, 014703.	3.0	21
34	Long-range influence of steps on water adsorption on clean and D-covered Pt surfaces. Physical Chemistry Chemical Physics, 2015, 17, 8530-8537.	2.8	27
35	Reaction dynamics of initial O2 sticking on Pd(100). Journal of Chemical Physics, 2015, 142, 214708.	3.0	12
36	Desorption of Water from Distinct Step Types on a Curved Silver Crystal. Molecules, 2014, 19, 10845-10862.	3.8	19

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37	Density functional theory study of adsorption of H2O, H, O, and OH on stepped platinum surfaces. Journal of Chemical Physics, 2014, 140, 134708.	3.0	83
38	Hydrogen adsorption and desorption at the Pt(110)-(1Ã—2) surface: experimental and theoretical study. Physical Chemistry Chemical Physics, 2013, 15, 6323.	2.8	67
39	Hydrogen Dissociation on Stepped Pt Surfaces. Springer Series in Surface Sciences, 2013, , 101-129.	0.3	6
40	Evidence of stable high-temperature Dx-CO intermediates on the Ru(0001) surface. Journal of Chemical Physics, 2012, 136, 114710.	3.0	4
41	Interaction between H2O and Preadsorbed D on the Stepped Pt(553) Surface. Journal of Physical Chemistry C, 2012, 116, 18706-18712.	3.1	20
42	Employing a cylindrical single crystal in gas-surface dynamics. Journal of Chemical Physics, 2012, 136, 114201.	3.0	15
43	Subsurface Oxygen on Pt(111) and Its Reactivity for CO Oxidation. Catalysis Letters, 2012, 142, 1-6.	2.6	38
44	A detailed TPD study of H2O and pre-adsorbed O on the stepped Pt(553) surface. Physical Chemistry Chemical Physics, 2011, 13, 1629-1638.	2.8	25
45	Tuning Hydrophobicity of Platinum by Small Changes in Surface Morphology. Physical Review Letters, 2011, 107, 146103.	7.8	14
46	The Energy Dependence of the Ratio of Step and Terrace Reactivity for H₂ Dissociation on Stepped Platinum. Angewandte Chemie - International Edition, 2011, 50, 5174-5177.	13.8	33
47	CO and H2O adsorption and reaction on Au(310). Surface Science, 2011, 605, 1726-1731.	1.9	11
48	Coâ€adsorption of O and H₂O on Nanostructured Platinum Surfaces: Does OH Form at Steps?. Angewandte Chemie - International Edition, 2010, 49, 6572-6575.	13.8	50
49	The influence of step geometry on the desorption characteristics of O2, D2, and H2O from stepped Pt surfaces. Journal of Chemical Physics, 2010, 132, 174705.	3.0	59
50	The Interaction between H₂O and Preadsorbed O on the Stepped Pt(533) Surface. Journal of Physical Chemistry C, 2010, 114, 18953-18960.	3.1	17
51	Identification of Hydroxyl on Ni(111). ChemPhysChem, 2009, 10, 270-275.	2.1	13
52	CO Blocking of D₂ Dissociative Adsorption on Ru(0001). ChemPhysChem, 2008, 9, 2372-2378.	2.1	21
53	The interaction of water with Ni(111) and H/Ni(111) studied by TPD and HREELS. Physical Chemistry Chemical Physics, 2008, 10, 2227.	2.8	20
54	Hydrophobic interactions between water and pre-adsorbed D on the stepped Pt(533) surface. Physical Chemistry Chemical Physics, 2008, 10, 7169.	2.8	26

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55	Co-adsorption of water and hydrogen on Ni(111). Physical Chemistry Chemical Physics, 2008, 10, 4994.	2.8	13