Helen Chadwick

List of Publications by Year
in descending order

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42	1,105	361388	414395
papers	citations	20 h-index	32 g-index

44	44	44	466
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stopping molecular rotation using coherent ultra-low-energy magnetic manipulations. Nature Communications, 2022, 13, 2287.	12.8	8
2	Measuring surface phonons using molecular spin-echo. Physical Chemistry Chemical Physics, 2022, 24, 14198-14208.	2.8	1
3	Multiple echoes in beam spin-echo spectroscopy and their effect on measurements of ultra-fast dynamics. Journal of Physics Condensed Matter, 2022, 34, 345901.	1.8	0
4	Molecular spin echoes; multiple magnetic coherences in molecule surface scattering experiments. Physical Chemistry Chemical Physics, 2021, 23, 7673-7681.	2.8	6
5	Differential cross sections and collision-induced rotational alignment in inelastic scattering of NO(X) by Xe. Chinese Journal of Chemical Physics, 2020, 33, 217-233.	1.3	3
6	Setting benchmarks for modelling gasâ€“surface interactions using coherent control of rotational orientation states. Nature Communications, 2020, 11, 3110.	12.8	22
7	Dynamical Study of the Dissociative Chemisorption of CHD₃ on Pd(111). Journal of Physical Chemistry C, 2019, 123, 24013-24023.	3.1	11
8	CHD₃ Dissociation on the Kinked Pt(210) Surface: A Comparison of Experiment and Theory. Journal of Physical Chemistry C, 2019, 123, 14530-14539.	3.1	14
9	Transferability of the SRP32-vdW specific reaction parameter functional to CHD3 dissociation on Pt(110)-(2 Ã— 1). Journal of Chemical Physics, 2019, 150, 124702.	3.0	17
10	Methane dissociation on the steps and terraces of Pt(211) resolved by quantum state and impact site. Journal of Chemical Physics, 2018, 148, 014701.	3.0	50
11	CHD3 dissociation on Pt(111): A comparison of the reaction dynamics based on the PBE functional and on a specific reaction parameter functional. Journal of Chemical Physics, 2018, 149, 044701.	3.0	16
12	Methane on a stepped surface: Dynamical insights on the dissociation of CHD3 on Pt(111) and Pt(211). Journal of Chemical Physics, 2018, 149, 094701.	3.0	15
13	Incident Angle Dependence of CHD₃ Dissociation on the Stepped Pt(211) Surface. Journal of Physical Chemistry C, 2018, 122, 19652-19660.	3.1	18
14	Quantum Stateâ€“Resolved Studies of Chemisorption Reactions. Annual Review of Physical Chemistry, 2017, 68, 39-61.	10.8	70
15	An experimental study of OH(A2Î£+) + H2: Electronic quenching, rotational energy transfer, and collisional depolarization. Journal of Chemical Physics, 2017, 146, 244313.	3.0	7
16	Surface Reaction Barriometry: Methane Dissociation on Flat and Stepped Transition-Metal Surfaces. Journal of Physical Chemistry Letters, 2017, 8, 4177-4182.	4.6	75
17	Stereodynamics in NO(X) + Ar inelastic collisions. Journal of Chemical Physics, 2016, 144, 224301.	3.0	21
18	Quantum state resolved molecular beam reflectivity measurements: CH4 dissociation on Pt(111). Journal of Chemical Physics, 2016, 145, 174707.	3.0	11

#	Article	IF	Citations
19	Quantum state resolved gasâ€“surface reaction dynamics experiments: a tutorial review. Chemical Society Reviews, 2016, 45, 3576-3594.	38.1	58
20	Steric effects and quantum interference in the inelastic scattering of NO(X) + Ar. Chemical Science, 2015, 6, 2202-2210.	7.4	56
21	The Negligible Role of Câ€“H Stretch Excitation in the Physisorption of CH₄ on Pt(111). Journal of Physical Chemistry C, 2015, 119, 14499-14505.	3.1	13
22	Rotational Orientation Effects in NO(X) + Ar Inelastic Collisions. Journal of Physical Chemistry A, 2015, 119, 12404-12416.	2.5	18
23	Fully quantum state-resolved inelastic scattering of NO(X) + Kr: Differential cross sections and product rotational alignment. Journal of Chemical Physics, 2014, 141, 164306.	3.0	32
24	Quantum state specific reactant preparation in a molecular beam by rapid adiabatic passage. Journal of Chemical Physics, 2014, 140, 034321.	3.0	25
25	Collisional depolarisation in electronically excited radicals. International Reviews in Physical Chemistry, 2014, 33, 79-123.	2.3	15
26	Inelastic Scattering of NO by Kr: Rotational Polarization over a Rainbow. Journal of Physical Chemistry Letters, 2014, 5, 3296-3301.	4.6	32
27	Ab Initio Molecular Dynamics Calculations versus Quantum-State-Resolved Experiments on CHD₃ + Pt(111): New Insights into a Prototypical Gasâ€“Surface Reaction. Journal of Physical Chemistry Letters, 2014, 5, 1294-1299.	4.6	120
28	The collisional depolarization of OH(AÂ2Î£+) and NO(AÂ2Î£+) with Kr. Journal of Chemical Physics, 2014, 140, 054306.	3.0	6
29	Electronic Quenching of OH A ²Î£⁺ Induced by Collisions with Kr Atoms. Journal of Physical Chemistry A, 2013, 117, 13481-13490.	2.5	18
30	Rotational alignment effects in NO(X) + Ar inelastic collisions: A theoretical study. Journal of Chemical Physics, 2013, 138, 104309.	3.0	32
31	Rotational alignment effects in NO(X) + Ar inelastic collisions: An experimental study. Journal of Chemical Physics, 2013, 138, 104310.	3.0	47
32	The fully quantum state-resolved inelastic scattering of NO(X) + Ne: experiment and theory. Molecular Physics, 2013, 111, 1759-1771.	1.7	36
33	Fully Î›-doublet resolved state-to-state differential cross-sections for the inelastic scattering of NO(X) with Ar. Physical Chemistry Chemical Physics, 2012, 14, 5403.	2.8	39
34	Ab Initio studies of the interaction potential for the Xeâ€“NO(Xâ€‰2Î) van der Waals complex: Bound states and fully quantum and quasi-classical scattering. Journal of Chemical Physics, 2012, 137, 014312.	3.0	21
35	The effect of parity conservation on the spinâ€“orbit conserving and spinâ€“orbit changing differential cross sections for the inelastic scattering of NO(X) by Ar. Physical Chemistry Chemical Physics, 2012, 14, 5420.	2.8	41
36	A new potential energy surface for OH(A 2Î£+)â€“Kr: The van der Waals complex and inelastic scattering. Journal of Chemical Physics, 2012, 137, 154305.	3.0	13

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37	The hyperfine structure of NO(A2Î£+). Journal of Molecular Spectroscopy, 2012, 282, 42-49.	1.2	7
38	Collisional angular momentum depolarization of OH(A) and NO(A) by Ar: A comparison of mechanisms. Journal of Chemical Physics, 2011, 135, 084306.	3.0	25
39	The k-j-jâ€² vector correlation in inelastic and reactive scattering. Journal of Chemical Physics, 2011, 135, 084305.	3.0	20
40	Applications of Zeeman quantum beat spectroscopy to angular momentum polarization studies. Physica Scripta, 2009, 80, 048120.	2.5	10
41	Collisional depolarization of NO(A) by He and Ar studied by quantum beat spectroscopy. Journal of Chemical Physics, 2009, 131, .	3.0	27
42	Elastic Depolarization of OH(A) by He and Ar: A Comparative Study. Journal of Physical Chemistry A, 2009, 113, 15156-15170.	2.5	26