Eric R Hudson

List of Publications by Year
in descending order

33 papers	937 citations	430874 18 h-index	434195 31 g-index
33 all docs	33 docs citations	33 times ranked	704 citing authors

#	Article	IF	Citations
1	Evidence for sympathetic vibrational cooling of translationally cold molecules. Nature, 2013, 495, 490-494.	27.8	103
2	Results of a Direct Search Using Synchrotron Radiation for the Low-Energy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Th</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>229</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>Nuclear Isomeric Transition. Physical Review Letters, 2015, 114, 253001.	7.8	87
3	Method for producing ultracold molecular ions. Physical Review A, 2009, 79, .	2.5	63
4	Neutral Gas Sympathetic Cooling of an Ion in a Paul Trap. Physical Review Letters, 2014, 112, 143009.	7.8	60
5	Synthesis of mixed hypermetallic oxide BaOCa ⁺ from laser-cooled reagents in an atom-ion hybrid trap. Science, 2017, 357, 1370-1375.	12.6	58
6	Dipolar quantum logic for freely rotating trapped molecular ions. Physical Review A, 2018, 98, .	2.5	53
7	High-fidelity manipulation of a qubit enabled by a manufactured nucleus. Npj Quantum Information, 2020, 6, .	6.7	49
8	Reaction blockading in a reaction between an excited atom and a charged molecule at low collision energy. Nature Chemistry, 2019, 11, 615-621.	13.6	41
9	An integrated ion trap and time-of-flight mass spectrometer for chemical and photo- reaction dynamics studies. Review of Scientific Instruments, 2012, 83, 043103.	1.3	38
10	Optical Control of Reactions between Water and Laser-Cooled Be⁺ Ions. Journal of Physical Chemistry Letters, 2018, 9, 3555-3560.	4.6	37
11	Explanation of efficient quenching of molecular ion vibrational motion by ultracold atoms. Nature Communications, 2016, 7, 11234.	12.8	30
12	Sympathetic cooling of molecular ions with ultracold atoms. EPJ Techniques and Instrumentation, 2016, 3, .	1.3	29
13	Laser-Cooling-Assisted Mass Spectrometry. Physical Review Applied, 2014, 2, .	3.8	28
14	Blue-sky bifurcation of ion energies and the limits of neutral-gas sympathetic cooling of trapped ions. Nature Communications, 2016, 7, 12448.	12.8	27
15	Molecular-ion trap-depletion spectroscopy of BaCl<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:mrow></mml:math>. Physical Review A, 2011, 83, .	2.5	26
16	Spectroscopy of a Synthetic Trapped Ion Qubit. Physical Review Letters, 2017, 119, 100501.	7.8	25
17	Measurement of the Coulomb Logarithm in a Radio-Frequency Paul Trap. Physical Review Letters, 2013, 110, 173003.	7.8	22
18	Dipole-Phonon Quantum Logic with Trapped Polar Molecular Ions. Physical Review Letters, 2020, 125, 120501.	7.8	21

#	Article	IF	Citations
19	In search of molecular ions for optical cycling: a difficult road. Physical Chemistry Chemical Physics, 2020, 22, 17075-17090.	2.8	20
20	Isomer-specific kinetics of the C ⁺ + H ₂ O reaction at the temperature of interstellar clouds. Science Advances, 2021, 7, .	10.3	16
21	Isotope-selective chemistry in the Be⁺(²S_{1/2}) + HOD â†' BeOD⁺/BeOH⁺ + H/D reaction. Physical Chemistry Chemical Physics, 2019, 21, 14005-14011.	2.8	14
22	Efficient repumping of a Ca magneto-optical trap. Physical Review A, 2017, 96, .	2.5	13
23	Electronics of an ion trap with integrated time-of-flight mass spectrometer. International Journal of Mass Spectrometry, 2016, 394, 1-8.	1.5	12
24	The coldest polar region. Nature Physics, 2008, 4, 911-912.	16.7	10
25	Action spectroscopy of SrCl+ using an integrated ion trap time-of-flight mass spectrometer. Journal of Chemical Physics, 2014, 141, 014309.	3.0	9
26	Excitation-assisted nonadiabatic charge-transfer reaction in a mixed atom-ion system. Physical Review A, 2019, 99, .	2.5	9
27	Engineering Excited-State Interactions at Ultracold Temperatures. Physical Review Letters, 2019, 122, 233401.	7.8	8
28	High-resolution collision energy control through ion position modulation in atom-ion hybrid systems. Review of Scientific Instruments, 2018, 89, 083112.	1.3	7
29	Application of a self-injection locked cyan laser for Barium ion cooling and spectroscopy. Scientific Reports, 2020, 10, 16494.	3.3	7
30	Dipoleâ€“phonon quantum logic with alkaline-earth monoxide and monosulfide cations. Physical Chemistry Chemical Physics, 2020, 22, 24964-24973.	2.8	6
31	Photodissociation spectroscopy of the dysprosium monochloride molecular ion. Journal of Chemical Physics, 2015, 143, 124309.	3.0	4
32	Determining reaction pathways at low temperatures by isotopic substitution: the case of BeD⁺ + H₂O. New Journal of Physics, 2021, 23, 115004.	2.9	4
33	Increase of the barium ion-trap lifetime via photodissociation. Physical Review A, 2021, 104, .	2.5	1