

# Å tÄ>pÃ;n RouÄka

## List of Publications by Year in descending order

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46  
papers

1,267  
citations

759233

12  
h-index

794594

19  
g-index

48  
all docs

48  
docs citations

48  
times ranked

1667  
citing authors

#	ARTICLE	IF	CITATIONS
1	The reaction of O <sup>+(4S)</sup> ions with H <sub>2</sub> , HD, and D <sub>2</sub> at low temperatures: Experimental study of the isotope effect. <i>Journal of Chemical Physics</i> , 2021, 154, 094301.	3.0	1
2	Cavity ring-down spectroscopy study of neon assisted recombination of $\text{H}^+$ ions with electrons. <i>Journal of Molecular Spectroscopy</i> , 2021, 378, 111450.	1.2	2
3	Experimental Study on CH <sup>+</sup> Formation from Doubly Charged Carbon and Molecular Hydrogen. <i>Astrophysical Journal</i> , 2021, 910, 155.	4.5	7
4	Reaction of carbon dication $\text{C}^{2+}$ with $\text{H}_2$ and $\text{D}_2$ at low temperatures. <i>Journal of Chemical Physics</i> , 2021, 154, 094301.	2.5	1
5	Dissociative recombination of N <sub>2</sub> H <sup>+</sup> ions with electrons in the temperature range of 80–350 K. <i>Journal of Chemical Physics</i> , 2020, 152, 024301.	3.0	4
6	Reaction of dication $\text{C}^{2+}$ with molecular hydrogen at temperature 20 K. <i>Journal of Physics: Conference Series</i> , 2020, 1412, 122007.	0.4	0
7	Towards state selective recombination of H <sub>3</sub> <sup>+</sup> under astrophysically relevant conditions. <i>Faraday Discussions</i> , 2019, 217, 220-234.	3.2	5
8	Reaction of NH <sup>+</sup> , NH <sub>2</sub> <sup>+</sup> , and NH <sub>3</sub> <sup>+</sup> ions with H <sub>2</sub> at low temperatures. <i>Astronomy and Astrophysics</i> , 2019, 625, A74.	5.1	16
9	OH <sup>+</sup> Formation in the Low-temperature O <sup>+</sup> ( <sup>4</sup> S) + H <sub>2</sub> Reaction. <i>Astrophysical Journal</i> , 2018, 856, 100.	4.5	10
10	Formation of H <sub>2</sub> O <sup>+</sup> and H <sub>3</sub> O <sup>+</sup> Cations in Reactions of OH <sup>+</sup> and H <sub>2</sub> O <sup>+</sup> with H <sub>2</sub> : Experimental Studies of the Reaction Rate Coefficients from T=15 to 300 K. <i>Astrophysical Journal</i> , 2018, 854, 25.	4.5	24
11	Stationary afterglow apparatus with CRDS for study of processes in plasmas from 300 K down to 30 K. <i>Review of Scientific Instruments</i> , 2018, 89, 063116.	1.3	8
12	Effect of rotational excitation of H <sub>2</sub> on isotopic exchange reaction with OD <sup>+</sup> at low temperatures. <i>Astronomy and Astrophysics</i> , 2018, 615, L6.	5.1	9
13	Overtone spectroscopy of N <sub>2</sub> H <sup>+</sup> molecular ions—application of cavity ring-down spectroscopy. <i>Journal of Instrumentation</i> , 2017, 12, C10010-C10010.	1.2	1
14	Stationary afterglow measurements of the temperature dependence of the electron-ion recombination rate coefficients of $\text{H}^+$ and $\text{HD}^+$ in He/Ar/H <sub>2</sub> /D <sub>2</sub> gas mixtures at $T = 80$ – $145$ K. <i>Plasma Sources Science and Technology</i> , 2017, 26, 035006.	3.1	5
15	Stationary afterglow measurements of the temperature dependence of the electron-ion recombination rate coefficients of $\text{D}^+$ and $\text{D}_2^+$ in He/Ar/H <sub>2</sub> /D <sub>2</sub> gas mixtures at $T = 80$ – $145$ K. <i>Plasma Sources Science and Technology</i> , 2017, 26, 035006.	2.5	6
16	Electron-ion recombination in low temperature hydrogen/deuterium plasma. <i>EPJ Applied Physics</i> , 2017, 80, 30801.	0.7	2
17	Reactions of O <sup>+</sup> with D <sub>2</sub> at temperatures below 300 K. <i>Journal of Physics: Conference Series</i> , 2017, 875, 012015.	0.4	0
18	Reactions of O <sup>+</sup> with D <sub>2</sub> at low temperatures 10–300 K. <i>Journal of Physics: Conference Series</i> , 2017, 875, 102020.	0.4	0

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19	Monitoring the removal of excited particles in He/Ar/H <sub>2</sub> low temperature afterglow plasma at 80–300 K. EPJ Applied Physics, 2016, 75, 24707.	0.7	3
20	Binary and ternary recombination of H <sub>2</sub> D <sup>+</sup> and HD <sub>2</sub> <sup>+</sup> ions with electrons at 80 K. Physical Chemistry Chemical Physics, 2016, 18, 23549-23553.	2.8	5
21	Recombination of H <sub>3</sub> ions with electrons in He/H <sub>2</sub> ambient gas at temperatures from 240 K to 340 K. Plasma Sources Science and Technology, 2015, 24, 065017.	3.1	10
22	Ion trap study of the charge transfer and associative detachment reactions of D <sup>+</sup> + H. Journal of Physics: Conference Series, 2015, 635, 022092.	0.4	0
23	Reaction of NH <sup>+</sup> with atomic hydrogen at low temperatures - an experimental study. Journal of Physics: Conference Series, 2015, 635, 022024.	0.4	0
24	Electron Transfer and Associative Detachment in Low-Temperature Collisions of D <sup>+</sup> with H. Journal of Physical Chemistry Letters, 2015, 6, 4762-4766.	4.6	5
25	Interaction of O <sup>+</sup> and H <sub>2</sub> at low temperatures. Journal of Chemical Physics, 2015, 142, 014304.	3.0	12
26	Complex formation and internal proton-transfer of hydroxyl-hydrogen anion complexes at low temperature. New Journal of Physics, 2015, 17, 075013.	2.9	8
27	H/D exchange in reactions of OH <sup>+</sup> with D <sub>2</sub> and of OD <sup>+</sup> with H <sub>2</sub> at low temperatures. Physical Chemistry Chemical Physics, 2015, 17, 8732-8739.	2.8	25
28	Determining the energy distribution of electrons produced in associative detachment: The electron spectrometer with multipole trap. International Journal of Mass Spectrometry, 2013, 352, 19-28.	1.5	13
29	PHOTODETACHMENT AS A DESTRUCTION MECHANISM FOR CN <sup>+</sup> AND C <sub>3</sub> N <sup>+</sup> ANIONS IN CIRCUMSTELLAR ENVELOPES. Astrophysical Journal, 2013, 776, 25.	4.5	53
30	Binary and ternary recombination of {m D}_3^+ + D <sub>3</sub> <sup>+</sup> ions at 80–130 K: Application of laser absorption spectroscopy. Journal of Chemical Physics, 2012, 137, 194320.	3.0	7
31	Binary recombination of para- and ortho-H <sub>3</sub> <sup>+</sup> with electrons at low temperatures. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5101-5108.	3.4	12
32	ION TRAP STUDIES OF H <sup>+</sup> + H <sup>+</sup> H <sub>2</sub> <sup>+</sup> + e <sup>-</sup> BETWEEN 10 AND 135 K. Astrophysical Journal, 2012, 749, 22.	4.5	39
33	Interactions of H <sup>+</sup> Anions with Atomic Hydrogen – Ion Trap study at 10–100 K. Journal of Physics: Conference Series, 2012, 388, 082057.	0.4	0
34	Binary and ternary recombination of para- $\{m H\}_3^+ + H_3^+$ and ortho- $\{m H\}_3^+ + H_3^+$ with electrons: State selective study at 77–200 K. Journal of Chemical Physics, 2012, 136, 244304.	3.0	26
35	Extending PIC Models to Higher Pressures – Enhanced Model of Collisions. IEEE Transactions on Plasma Science, 2011, 39, 3244-3250.	1.3	5
36	Ternary association of H <sup>+</sup> ion with H <sub>2</sub> at 11 K, experimental study. EPJ Applied Physics, 2011, 56, 24010.	0.7	11

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37	Recombination in low temperature Ar-dominated plasmas. Journal of Physics: Conference Series, 2011, 300, 012021.	0.4	0
38	Cryo-FALP study of collisional-radiative recombination of Ar <sup>+</sup> ions at 40–200 Å. EPJ Applied Physics, 2011, 56, 24011.	0.7	8
39	Recombination of Ar <sup>+</sup> ions with electrons in low temperature plasma. Journal of Physics: Conference Series, 2010, 227, 012026.	2.5	24
40	Application of NIR CRDS for state selective study of recombination of para and ortho H <sub>3</sub> <sup>+</sup> ions with electrons in low temperature plasma. Journal of Physics: Conference Series, 2010, 227, 012026.	0.4	5
41	Temperature dependence of binary and ternary recombination of D <sub>3</sub> <sup>+</sup> ions with electrons. Journal of Chemical Physics, 2010, 133, 034305.	3.0	15
42	Binary and ternary recombination of D <sub>3</sub> <sup>+</sup> ions with electrons in low temperature plasma. Molecular Physics, 2010, 108, 2253-2264.	1.7	24
43	Binary and ternary recombination of D <sub>3</sub> <sup>+</sup> ions with electrons in He-D <sub>2</sub> plasma. Physical Review A, 2009, 80, 043401.	2.5	19
44	Study of plasma-solid interaction in electronegative gas mixtures at higher pressures. Vacuum, 2009, 84, 94-96.	3.5	4
45	3D particle simulations of plasma-solid interaction: magnetized plasma and a cylindrical cavity. Journal of Physics: Conference Series, 2008, 100, 062010.	0.4	1
46	SymPy: symbolic computing in Python. PeerJ Computer Science, 0, 3, e103.	4.5	830