Thierry Stoecklin

List of Publications by Year
in descending order

47	816	394421 19	552781 26
papers	citations	h-index	g-index

48	48	48	628
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparison of the cross-sections and thermal rate constants for the reactions of C(3PJ) atoms with O2 and NO. Physical Chemistry Chemical Physics, 2000, 2, 2873-2881.	2.8	52
2	Electron-impact rotational and hyperfine excitation of HCN, HNC, DCN and DNC. Monthly Notices of the Royal Astronomical Society, 2007, 382, 840-848.	4.4	46
3	Explicitly correlated treatment of the Arâ€“NO+ cation. Journal of Chemical Physics, 2011, 135, 044312.	3.0	42
4	Potential energy surface of the CO2â€“N2 van der Waals complex. Journal of Chemical Physics, 2015, 142, 174301.	3.0	41
5	Experimental and Theoretical Kinetics for the Reaction of Al with O2at Temperatures between 23 and 295 K. Journal of Physical Chemistry A, 1997, 101, 9988-9992.	2.5	36
6	Ro-vibrational relaxation of HCN in collisions with He: Rigid bender treatment of the bending-rotation interaction. Journal of Chemical Physics, 2013, 139, 124317.	3.0	33
7	Cross sections and low temperature rate coefficients for the H + CH+reaction: a quasiclassical trajectory study. Physical Chemistry Chemical Physics, 2007, 9, 582-590.	2.8	32
8	Explanation of efficient quenching of molecular ion vibrational motion by ultracold atoms. Nature Communications, 2016, 7, 11234.	12.8	30
9	Rotational excitation of HCN by para- and ortho-H2. Journal of Chemical Physics, 2014, 140, 224302.	3.0	29
10	The interaction of He with vibrating HCN: Potential energy surface, bound states, and rotationally inelastic cross sections. Journal of Chemical Physics, 2013, 139, 034304.	3.0	27
11	Rotational relaxation of HCO+ and DCO+ by collision with H2. Monthly Notices of the Royal Astronomical Society, 2020, 497, 4276-4281.	4.4	24
12	Rate constant calculations for ionâ€“symmetric top and ionâ€“asymmetric top reactions. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 901-908.	1.7	22
13	A new abâ€initio potential energy surface for the collisional excitation of HCN by para- and ortho-H2. Journal of Chemical Physics, 2013, 139, 224301.	3.0	22
14	Low temperature rate coefficients of the H + CH+ â†' C+ + H2 reaction: New potential energy surface and time-independent quantum scattering. Journal of Chemical Physics, 2015, 143, 114304.	3.0	22
15	A new ab initio potential energy surface for the collisional excitation of O2 by H2. Physical Chemistry Chemical Physics, 2012, 14, 16458.	2.8	21
16	Rovibrational energy transfer in the Heâ€“C3 collision: rigid bender treatment of the bendingâ€“rotation interaction and rate coefficients. Monthly Notices of the Royal Astronomical Society, 2015, 449, 3420-3425.	4.4	21
17	New ratecoefficients of CS in collision with para- and ortho-H2 and astrophysical implications. Monthly Notices of the Royal Astronomical Society, 2018, 478, 1811-1817.	4.4	21
18	Rotational transitions of C3Nâ^' induced by collision with H2. Monthly Notices of the Royal Astronomical Society, 2019, 486, 414-421.	4.4	21

#	Article	IF	Citations
19	Rovibrational energy transfer in the He-C3 collision: Potential energy surface and bound states. Journal of Chemical Physics, 2014, 140, 084316.	3.0	20
20	Complex rovibrational dynamics of the ArÂ·NO⁺ complex. Physical Chemistry Chemical Physics, 2017, 19, 8152-8160.	2.8	19
21	Rigid-Bender Close-Coupling Treatment of the Inelastic Collisions of H₂O with para-H₂. Journal of Physical Chemistry A, 2019, 123, 5704-5712.	2.5	19
22	Spin-orbit quenching of the C+(2P) ion by collisions with para- and ortho-H2. Journal of Chemical Physics, 2013, 138, 204314.	3.0	18
23	Rotational relaxation of CS by collision with ortho- and para-H2 molecules. Journal of Chemical Physics, 2013, 139, 204304.	3.0	18
24	The interaction of MnH(Xâ€‰Î£7+) with He: Ab initio potential energy surface and bound states. Journal of Chemical Physics, 2010, 132, 214305.	3.0	15
25	Theoretical Sensitivity of the C(³P) + OH(X²Î) â†' CO(X¹Î£⁺) + H(²S) Rate Constant: The Role of the Long-Range Potential. Journal of Physical Chemistry A, 2010, 114, 7494-7499.	2.5	13
26	Isotopic effects in the collision of HCN with He: substitution of HCN by DCN. Monthly Notices of the Royal Astronomical Society, 2015, 453, 1317-1323.	4.4	13
27	Rotational energy transfer in collisions between CO and Ar at temperatures from 293 to 30 K. Chemical Physics Letters, 2017, 683, 521-528.	2.6	13
28	Quantum tunneling dynamical behaviour on weakly bound complexes: the case of a CO₂â€“N₂ dimer. Physical Chemistry Chemical Physics, 2019, 21, 3550-3557.	2.8	13
29	On the gas-phase formation of the HCO radical: accurate quantum study of the H+CO radiative association. Monthly Notices of the Royal Astronomical Society, 2018, 475, 2545-2552.	4.4	12
30	Prediction of the existence of the N2Hâ^' molecular anion. Journal of Chemical Physics, 2012, 136, 244302.	3.0	11
31	Rotational (de-)excitation of C3Nâ^' by collision with He atoms. Monthly Notices of the Royal Astronomical Society, 2017, 467, 4174-4179.	4.4	10
32	A close coupling study of the bending relaxation of H2O by collision with He. Journal of Chemical Physics, 2021, 154, 144307.	3.0	10
33	Rovibrational rate coefficients of NO+ in collision with He. Monthly Notices of the Royal Astronomical Society, 2015, 451, 2986-2990.	4.4	9
34	Formation of Na-containing complex molecules in the gas phase in dense molecular clouds: quantum study of the Na+Â+ÂH2 and Na+Â+ÂD2 radiative association step. Monthly Notices of the Royal Astronomical Society, 2019, 485, 5874-5879.	4.4	7
35	Radiative Electron Attachment and Photodetachment Rate Constants for Linear Carbon Chains. ACS Earth and Space Chemistry, 2019, 3, 1556-1563.	2.7	6
36	Interaction of rigid C3Nâ^' with He: Potential energy surface, bound states, and rotational spectrum. Journal of Chemical Physics, 2017, 146, 224310.	3.0	5

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37	Isotopic effects in the collision of CH+ with He. Monthly Notices of the Royal Astronomical Society, 2017, 468, 2582-2589.	4.4	5
38	Potential energy surface and rovibrational bound states of the H₂â€“C₃N^{â˜…} van der Waals complex. Physical Chemistry Chemical Physics, 2019, 21, 2929-2937.	2.8	5
39	Single-center approach for photodetachment and radiative electron attachment: Comparison with other theoretical approaches and with experimental photodetachment data. Physical Review A, 2019, 99, .	2.5	5
40	Predissociation spectra of the 35Clâ˜…(H2) complex and its isotopologue 35Clâ˜…(D2). Physical Chemistry Chemical Physics, 2020, 22, 25552-25559.	2.8	5
41	Strong ortho/para effects in the vibrational spectrum of Cl-(H2). Journal of Chemical Physics, 2021, 155, 241101.	3.0	5
42	Resolved fine and hyperfine state-to-state rate coefficients for the rotational transitions of C3N induced by collision with He. Monthly Notices of the Royal Astronomical Society, 2021, 507, 4086-4094.	4.4	4
43	On the gas-phase formation of the HCO^{â˜…} anion: accurate quantum study of the H^{â˜…} + CO radiative association and HCO radiative electron attachment. Faraday Discussions, 2018, 212, 101-116.	3.2	3
44	Predissociation spectroscopy of cold CN^{â˜…}H₂ and CN^{â˜…}D₂. Molecular Physics, 0, , .	1.7	3
45	Rotational Transitions of HOC⁺ Induced by Collision with He at Low Temperatures. Journal of Physical Chemistry A, 2019, 123, 10990-10995.	2.5	2
46	Rotational relaxation of H₂S by collision with He. Astronomy and Astrophysics, 2020, 638, A31.	5.1	2
47	Quantum study of the bending relaxation of H2O by collision with H. Monthly Notices of the Royal Astronomical Society, 2022, 514, 4426-4432.	4.4	2