Andre Canosa

List of Publications by Year
in descending order

93 papers	2,548 citations	136740 32 h-index	223531 46 g-index
98 all docs	98 docs citations	98 times ranked	1548 citing authors

#	Article	IF	Citations
1	Laser induced fluorescence and vacuum ultraviolet spectroscopic studies of Hâ€atom production in the dissociative recombination of some protonated ions. Journal of Chemical Physics, 1991, 94, 4852-4857.	1.2	119
2	CRITICAL REVIEW OF N, N ⁺ , N ⁺ ₂ , N ⁺⁺ , And N ⁺⁺ ₂ MAIN PRODUCTION PROCESSES AND REACTIONS OF RELEVANCE TO TITAN'S ATMOSPHERE. Astrophysical Journal, Supplement Series, 2013, 204, 20.	3.0	118
3	The rate of the FÂ+ÂH2 reaction at very low temperatures. Nature Chemistry, 2014, 6, 141-145.	6.6	105
4	Kinetics and Dynamics of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="normal">S</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mmultiscripts><mml:mi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (mathvariant="normal">D</m mathvariant="normal">H</mm	2.9	88
5	How Measurements of Rate Coefficients at Low Temperature Increase the Predictivity of Photochemical Models of Titanâ€™s Atmosphere. Journal of Physical Chemistry A, 2009, 113, 11227-11237.	1.1	82
6	Kinetics over a wide range of temperature (13â€“744 K): Rate constants for the reactions of CH(Î½=0) with H2 and D2 and for the removal of CH(Î½=1) by H2 and D2. Journal of Chemical Physics, 1997, 106, 7662-7677.	1.2	74
7	The Thermodynamics of the Elusive HO ₃ Radical. Science, 2010, 328, 1258-1262.	6.0	71
8	Simple quantitative assessment of the outdoor versus indoor airborne transmission of viruses and COVID-19. Environmental Research, 2021, 198, 111189.	3.7	64
9	A further study of HCO+ dissociative recombination. Journal of Chemical Physics, 1992, 96, 1105-1110.	1.2	58
10	Further measurements of the H+3(v=0,1,2) dissociative recombination rate coefficient. Journal of Chemical Physics, 1992, 97, 1028-1037.	1.2	56
11	REACTIVITY OF OH AND CH₃OH BETWEEN 22 AND 64 K: MODELING THE GAS PHASE PRODUCTION OF CH₃O IN BARNARD 1b. Astrophysical Journal, 2016, 823, 25.	1.6	53
12	The Si($^mathsf3$PJ) + O$_mathsf2$ reaction: A fast source of SiO at very low temperature; CRESU measurements and interstellar consequences. Astronomy and Astrophysics, 2001, 372, 1064-1070.	2.1	47
13	A CROSSED MOLECULAR BEAM, LOW-TEMPERATURE KINETICS, AND THEORETICAL INVESTIGATION OF THE REACTION OF THE CYANO RADICAL (CN) WITH 1,3-BUTADIENE (C₄H₆). A ROUTE TO COMPLEX NITROGEN-BEARING MOLECULES IN LOW-TEMPERATURE EXTRATERRESTRIAL ENVIRONMENTS. Astrophysical Journal, 2011, 742, 26.	1.6	45
14	An experimental study of the reaction kinetics of C2(X1Î£g+) with hydrocarbons (CH4, C2H2, C2H4, C2H6) Tj ETQq0 0 0 rgBT /Overlock Giant Planets. Icarus, 2007, 187, 558-568.	1.1	44
15	Rate Constants for the Relaxation of CH(X2Î,Î½=1) by CO and N2at Temperatures from 23 to 584 K. The Journal of Physical Chemistry, 1996, 100, 14928-14935.	2.9	43
16	A comparative study of the reactivity of the silicon atom Si(3PJ) towards O2 and NO molecules at very low temperature. Physical Chemistry Chemical Physics, 2002, 4, 3659-3664.	1.3	43
17	The reaction of anthracene with OH radicals: An experimental study of the kinetics between 58 and 470K. Journal of Chemical Physics, 2005, 122, 104308.	1.2	42
18	Uniform Supersonic Chemical Reactors: 30â€…Years of Astrochemical History and Future Challenges. Angewandte Chemie - International Edition, 2017, 56, 8618-8640.	7.2	42

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19	Gas-phase reactivity of CH₃OH toward OH at interstellar temperatures (11.7â€“177.5 K): experimental and theoretical study. Physical Chemistry Chemical Physics, 2019, 21, 6942-6957.	1.3	42
20	Infrared spectroscopy of (CO2)N nanoparticles (30<N<14500) flowing in a uniform supersonic expansion. Journal of Chemical Physics, 2003, 118, 3612-3621.	1.2	41
21	Rate Coefficients for the Reactions of C₂(a³Î_u) and C₂(X¹Î£_g⁺) with Various Hydrocarbons (CH₄, C₂H₂, C₂H₄,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 65 over the Temperature Range 24â€"300 K. Journal of Physical Chemistry A, 2008, 112, 9591-9600.	1.1	41
22	Dissociative recombination ofHeH+: A reexamination. Physical Review A, 1994, 49, 4610-4615.	1.0	40
23	Flowing Afterglow Langmuir Probe measurement of the N+2(v=0) dissociative recombination rate coefficient. Journal of Chemical Physics, 1991, 94, 7159-7163.	1.2	38
24	Crossed-Beam Dynamics, Low-Temperature Kinetics, and Theoretical Studies of the Reaction S(¹D) + C₂H₄. Journal of Physical Chemistry A, 2009, 113, 15328-15345.	1.1	38
25	FALP and CRESU studies of ionic reactions. International Journal of Mass Spectrometry and Ion Processes, 1995, 149-150, 573-596.	1.9	36
26	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.	1.1	36
27	Low temperature rate coefficients for reactions of the butadiynyl radical, C4H, with various hydrocarbons. Part II: reactions with alkenes (ethylene, propene, 1-butene), dienes (allene,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 12, 3677.	1.3	36
28	Is the Gas-phase OH+H₂CO Reaction a Source of HCO in Interstellar Cold Dark Clouds? A Kinetic, Dynamic, and Modeling Study. Astrophysical Journal, 2017, 850, 28.	1.6	34
29	Observation of organosulfur products (thiovinoxy, thioketene and thioformyl) in crossed-beam experiments and low temperature rate coefficients for the reaction S(1D) + C2H4. Physical Chemistry Chemical Physics, 2009, 11, 4701.	1.3	33
30	Experimental measurements of low temperature rate coefficients for neutralâ€“neutral reactions of interest for atmospheric chemistry of Titan, Pluto and Triton: Reactions of the CN radical. Faraday Discussions, 2010, 147, 155.	1.6	33
31	Low temperature kinetics and theoretical studies of the reaction CN + CH₃NH₂: a potential source of cyanamide and methyl cyanamide in the interstellar medium. Physical Chemistry Chemical Physics, 2018, 20, 5478-5489.	1.3	33
32	Rate coefficients for the reactions of Si(3PJ) with C2H2 and C2H4: Experimental results down to 15 K. Journal of Chemical Physics, 2001, 115, 6495-6503.	1.2	32
33	Low temperature (39â€“298 K) kinetics study of the reactions of the C4H radical with various hydrocarbons observed in Titan's atmosphere. Icarus, 2008, 194, 746-757.	1.1	32
34	The Radiative Association of CH with H2: A Mechanism for Formation of CH3in Interstellar Clouds. Astrophysical Journal, 1997, 485, 195-202.	1.6	31
35	Rate constant calculations for atomâ€“diatom reaction involving an open-shell atom and a molecule in a Î£ electronic state Application to the reaction Al(2P1/2,3/2)+O2(X3Î£g-)â†'AlO(X2Î£+) +O(3P2,1,0). Journal of the Chemical Society, Faraday Transactions, 1998, 94, 1681-1686.	1.7	31
36	A consensus view of the temperature dependence of the gas phase reaction: OH + HBr ? H2O + Br. International Journal of Chemical Kinetics, 2002, 34, 339-344.	1.0	31

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37	Reaction of Anthracene with CH Radicals:â€‰ An Experimental Study of the Kinetics between 58 and 470 K. Journal of Physical Chemistry A, 2006, 110, 3132-3137.	1.1	31
38	A chemical dynamics, kinetics, and theoretical study on the reaction of the cyano radical (CN; X2Î£+) with phenylacetylene (C6H5CCH; X1A1). Physical Chemistry Chemical Physics, 2010, 12, 8737.	1.3	29
39	Low temperature rate coefficients for reactions of the butadiynyl radical, C₄H, with various hydrocarbons. Part I: reactions with alkanes (CH₄, C₂H₆,) Tj ETQq1 1 0.784314 rgBT /Ov 2010, 12, 3666-3676.	1.3	29
40	First evidence of the dramatic enhancement of the reactivity of methyl formate (HC(O)OCH₃) with OH at temperatures of the interstellar medium: a gas-phase kinetic study between 22 K and 64 K. Physical Chemistry Chemical Physics, 2016, 18, 2183-2191.	1.3	29
41	Low temperature measurements of the rate of association to benzene dimers in helium. Journal of Chemical Physics, 2000, 112, 4506-4516.	1.2	28
42	Low temperature kinetics: the association of OH radicals with O2. Physical Chemistry Chemical Physics, 2010, 12, 12702.	1.3	26
43	An Experimental Study of the Intersystem Crossing and Reactions of C2(XÎ£g+) and C2(a3Î u) with O2 and NO at Very Low Temperature (24â ̃300 K). Journal of Physical Chemistry A, 2006, 110, 3121-3127.	1.1	25
44	Development of a pulsed uniform supersonic gas expansion system based on an aerodynamic chopper for gas phase reaction kinetic studies at ultra-low temperatures. Review of Scientific Instruments, 2015, 86, 045108.	0.6	25
45	Design and testing of temperature tunable de Laval nozzles for applications in gas-phase reaction kinetics. Experiments in Fluids, 2016, 57, 1.	1.1	24
46	Rate coefficients and integral cross-sections for the reaction of B(2PJ) atoms with acetylene. Physical Chemistry Chemical Physics, 2004, 6, 566.	1.3	23
47	Gas Phase Reactive Collisions at Very Low Temperature: Recent Experimental Advances and Perspectives. , 2008, , 55-120.		23
48	Increased airborne transmission of COVID-19 with new variants, implications for health policies. Building and Environment, 2022, 219, 109132.	3.0	23
49	Rate coefficients for interstellar gas-phase chemistry. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 2193.	1.7	22
50	Gas phase kinetics of the OH + CH₃CH₂OH reaction at temperatures of the interstellar medium (<i>T</i> = 21â€“107 K). Physical Chemistry Chemical Physics, 2018, 20, 5865-5873.	1.3	22
51	Electron attachment to anthracene. A FALP measurement of the rate coefficient at room temperature. Chemical Physics Letters, 1994, 228, 26-31.	1.2	21
52	Pressure dependent low temperature kinetics for CN + CH₃CN: competition between chemical reaction and van der Waals complex formation. Physical Chemistry Chemical Physics, 2016, 18, 15118-15132.	1.3	21
53	Determination of the limiting low pressure rate constants of the reactions of CH with N2 and CO: a CRESU measurement at 53 K. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 2889-2893.	1.7	20
54	Full dimensional potential energy surface and low temperature dynamics of the H₂CO + OH â†’ HCO + H₂O reaction. Physical Chemistry Chemical Physics, 2018, 20, 5415-5426.	1.3	20

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55	First Experimental Determination of the Absolute Gas-Phase Rate Coefficient for the Reaction of OH with 4-Hydroxy-2-Butanone (4H2B) at 294 K by Vapor Pressure Measurements of 4H2B. Journal of Physical Chemistry A, 2013, 117, 117-125.	1.1	17
56	Uniform Supersonic Expansion for FTIR Absorption Spectroscopy: The Î½5 Band of (NO)2 at 26 K. Journal of Molecular Spectroscopy, 2000, 199, 92-99.	0.4	15
57	Experimental and theoretical study of intramultiplet transitions in collisions of C(3P) and Si(3P) with He. Journal of Chemical Physics, 2002, 117, 10109-10120.	1.2	15
58	Experimental Kinetics Study of the Reaction of Boron Atoms, B(2PJ), with Ethylene at Very Low Temperatures (23â˜295 K). Journal of Physical Chemistry A, 2004, 108, 6183-6185.	1.1	15
59	Dissociative recombination of HCS+ and H3S+ ions studied in a flowing afterglow apparatus. Chemical Physics Letters, 1992, 194, 263-267.	1.2	12
60	Fine structure relaxation of aluminum by atomic argon between 30 and 300 K: An experimental and theoretical study. Journal of Chemical Physics, 1998, 108, 10319-10326.	1.2	12
61	Electron attachment in HBr and HCl. Journal of Chemical Physics, 2001, 114, 8303-8309.	1.2	12
62	An experimental and theoretical study of the kinetics of the reaction between 3-hydroxy-3-methyl-2-butanone and OH radicals. RSC Advances, 2015, 5, 26559-26568.	1.7	12
63	Experimental and theoretical investigations of the kinetics and mechanism of the ClÂ+ 4-hydroxy-4-methyl-2-pentanone reaction. Atmospheric Environment, 2017, 166, 315-326.	1.9	12
64	Experimental and Theoretical Investigation on the OH + CH₃C(O)CH₃ Reaction at Interstellar Temperatures (<i>T</i> = 11.7â€“64.4 K). ACS Earth and Space Chemistry, 2019, 3, 1873-1883.	1.2	12
65	Gas-phase kinetics of CH₃CHO with OH radicals between 11.7 and 177.5 K. Physical Chemistry Chemical Physics, 2020, 22, 20562-20572.	1.3	12
66	Reaction of anthracene with atomic ions of interstellar interest. A FALP measurement at room temperature. Chemical Physics Letters, 1995, 245, 407-414.	1.2	10
67	Comment on â€œMethanol dimer formation drastically enhances hydrogen abstraction from methanol by OH at low temperatureâ€•by W. Siebrand, Z. Smedarchina, E. MartÃnez-NÃºÃ±ez and A. FernÃ¡ndez-Ramos, <i>Phys. Chem. Chem. Phys</i>., 2016, 18, 22712. Physical Chemistry Chemical Physics, 2018, 20, 8349-8354.	1.3	10
68	The Quest for the Hydroxyl-Peroxy Radical. Zeitschrift Fur Physikalische Chemie, 2010, 224, 949-965.	1.4	9
69	A new instrument for kinetics and branching ratio studies of gas phase collisional processes at very low temperatures. Review of Scientific Instruments, 2021, 92, 014102.	0.6	9
70	Measurement of the rate constant for the association reaction CH + N2at 53 K and its relevance to Triton's atmosphere. Geophysical Research Letters, 1998, 25, 485-488.	1.5	8
71	Experimental and theoretical temperature dependence of the rate coefficient of the B(2P1/2,3/2)+O2(X3Î£gâ˜) reaction in the [24â€“295 K] temperature range. Chemical Physics Letters, 2004, 385, 502-506.	1.2	8
72	Gas Phase Reactivity of the CN Radical with Methyl Amines at Low Temperatures (23â€“297 K): A Combined Experimental and Theoretical Investigation. ACS Earth and Space Chemistry, 2018, 2, 1047-1057.	1.2	8

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73	Kinetic Measurements of Cl Atom Reactions with C5â€“C8 Unsaturated Alcohols. Atmosphere, 2020, 11, 256.	1.0	8
74	Atmospheric Degradation of 4-Hydroxy 4-Methyl 2-Pentanone with OH in the Gas Phase at 297 K. Energy Procedia, 2013, 36, 502-510.	1.8	7
75	Kinetics and Mechanism of the Tropospheric Reaction of 3-Hydroxy-3-methyl-2-butanone with Cl Atoms. Journal of Physical Chemistry A, 2014, 118, 6163-6170.	1.1	7
76	Uniform Supersonic Flows in Chemical Physics. , 2022, , .		6
77	Gas phase reaction kinetics at very low temperatures: recent advances on carbon chemistry using the CRESU technique. Russian Chemical Reviews, 2007, 76, 1093-1106.	2.5	5
78	Gas phase reaction kinetics of complex organic molecules at temperatures of the interstellar medium: The OH + CH3OH case. Proceedings of the International Astronomical Union, 2019, 15, 35-40.	0.0	5
79	The impact of water vapor on the OH reactivity toward CH3CHO at ultra-low temperatures (21.7â€“135.0Â K): Experiments and theory. Journal of Chemical Physics, 2021, 155, 034306.	1.2	5
80	Gas-phase ozonolysis of trans-2-hexenal: Kinetics, products, mechanism and SOA formation. Atmospheric Environment, 2021, 253, 118344.	1.9	4
81	An experimental study of the gas-phase reaction between Cl atoms and trans-2-pentenal: Kinetics, products and SOA formation. Chemosphere, 2021, 276, 130193.	4.2	3
82	Gas-Phase Ozone Reaction Kinetics of C₅â€“C₈ Unsaturated Alcohols of Biogenic Interest. Journal of Physical Chemistry A, 2022, 126, 4413-4423.	1.1	3
83	Chemie mit Ãœberschall: 30â€…Jahre astrochemische Forschung und kÃ¼nftige Herausforderungen. Angewandte Chemie, 2017, 129, 8742-8766.	1.6	2
84	Gas-phase reactivity of CH₃OH+OH down to 11.7 K: Astrophysical implications. Proceedings of the International Astronomical Union, 2019, 15, 365-367.	0.0	2
85	Gas-Phase Reactivity of OH Radicals With Ammonia (NH3) and Methylamine (CH3NH2) at Around 22Â K. Frontiers in Astronomy and Space Sciences, 2022, 8, .	1.1	2
86	Low Temperature Experiments on Gas-Phase Chemical Processes. Symposium - International Astronomical Union, 2000, 197, 237-250.	0.1	1
87	Gas phase reactive collisions, experimental approach. EPJ Web of Conferences, 2011, 18, 02003.	0.1	1
88	Experimental and Theoretical Studies of Trans-2-Pentenal Atmospheric Ozonolysis. Atmosphere, 2022, 13, 291.	1.0	1
89	Laboratory experiments as support to the built up of Titan's theoretical models and interpretation of Cassini-Huygens data. Proceedings of the International Astronomical Union, 2008, 4, 319-320.	0.0	0
90	Gas-phase reactivity of CH₃C(O) CH₃ with OH radicals at interstellar Temperatures (T = 11.7 â€“ 64.4 K) using the CRESU technique. Proceedings of the International Astronomical Union, 2019, 15, 379-381.	0.0	0

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91	Reaction Kinetics in Uniform Supersonic Flows at Very Low Temperatures. , 2001, , 579-590.		0
92	Experimental Study of Naphthalene and Anthracene Reactions. Astrophysics and Space Science Library, 1995, , 231-238.	1.0	0
93	Ã‰tude de rÃ©actions radicalaires Ã trÃ¨s basses tempÃ©ratures. Implications astrochimiques. Annales De Physique, 1997, 22, C1-89-C1-96.	0.2	0