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	Uniform Supersonic Flows in Chemical Physics. , 2022, , .		6
2	Gas-Phase Reactivity of OH Radicals With Ammonia (NH3) and Methylamine (CH3NH2) at Around 22ÂK. Frontiers in Astronomy and Space Sciences, 2022, 8, .	1.1	2
3	Experimental and Theoretical Studies of Trans-2-Pentenal Atmospheric Ozonolysis. Atmosphere, 2022, 13, 291.	1.0	1
4	Increased airborne transmission of COVID-19 with new variants, implications for health policies. Building and Environment, 2022, 219, 109132.	3.0	23
5	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
6	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
7	Gas-phase ozonolysis of trans-2-hexenal: Kinetics, products, mechanism and SOA formation. Atmospheric Environment, 2021, 253, 118344.	1.9	4
8	The impact of water vapor on the OH reactivity toward CH3CHO at ultra-low temperatures (21.7â€"135.0ÂK): Experiments and theory. Journal of Chemical Physics, 2021, 155, 034306.	1.2	5
9	Simple quantitative assessment of the outdoor versus indoor airborne transmission of viruses and COVID-19. Environmental Research, 2021, 198, 111189.	3.7	64
10	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
11	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
12	Kinetic Measurements of Cl Atom Reactions with C5â€"C8 Unsaturated Alcohols. Atmosphere, 2020, 11, 256.	1.0	8
13	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
14	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
15	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
16	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
17	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
18	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

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19	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
20	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
21	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
22	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
23	Uniform Supersonic Chemical Reactors: 30â€…Years of Astrochemical History and Future Challenges. Angewandte Chemie - International Edition, 2017, 56, 8618-8640.	7.2	42
24	Chemie mit Ãœberschall: 30â€…Jahre astrochemische Forschung und kÃ¼nftige Herausforderungen. Angewandte Chemie, 2017, 129, 8742-8766.	1.6	2
25	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
26	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
27	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
28	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
29	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
30	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
31	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
32	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
33	The rate of the FÂ+ÂH2 reaction at very low temperatures. Nature Chemistry, 2014, 6, 141-145.	6.6	105
34	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
35	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
36	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

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37	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
38	Gas phase reactive collisions, experimental approach. EPJ Web of Conferences, 2011, 18, 02003.	0.1	1
39	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
40	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
41	The Thermodynamics of the Elusive HO ₃ Radical. Science, 2010, 328, 1258-1262.	6.0	71
42	The Quest for the Hydroxyl-Peroxy Radical. Zeitschrift Fur Physikalische Chemie, 2010, 224, 949-965.	1.4	9
43	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
44	Low temperature rate coefficients for reactions of the butadiynyl radical, C₄H, with various hydrocarbons. Part I: reactions with alkanes (CH₄, C₂H₆,) Tj ETQq0 0 0 rgBT /Overlock 10 2010, 12, 3666-3676.	1.3	29
45	Low temperature kinetics: the association of OH radicals with O2. Physical Chemistry Chemical Physics, 2010, 12, 12702.	1.3	26
46	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 ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td 12, 3677.	1.3	36
47	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
48	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
49	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
50	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
51	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
52	Rate Coefficients for the Reactions of C₂(a³Î_u) and C₂(X¹Î£_g⁺) with Various Hydrocarbons (CH₄, C₂H₂, C₂H₄,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 137 Td (C< over the Temperature Range 24â˘'300 K. Journal of Physical Chemistry A, 2008, 112, 9591-9600.	1.1	41
53	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
54	Gas Phase Reactive Collisions at Very Low Temperature: Recent Experimental Advances and Perspectives. , 2008, , 55-120.		23

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55	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
56	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
57	An Experimental Study of the Intersystem Crossing and Reactions of C2(XÎ£g+) and C2(a3Îu) with O2 and NO at Very Low Temperature (24â˘'300 K). Journal of Physical Chemistry A, 2006, 110, 3121-3127.	1.1	25
58	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
59	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
60	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
61	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
62	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
63	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
64	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
65	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
66	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
67	Electron attachment in HBr and HCl. Journal of Chemical Physics, 2001, 114, 8303-8309.	1.2	12
68	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
69	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
70	Reaction Kinetics in Uniform Supersonic Flows at Very Low Temperatures. , 2001, , 579-590.		0
71	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
72	Low Temperature Experiments on Gas-Phase Chemical Processes. Symposium - International Astronomical Union, 2000, 197, 237-250.	0.1	1

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73	Low temperature measurements of the rate of association to benzene dimers in helium. Journal of Chemical Physics, 2000, 112, 4506-4516.	1.2	28
74	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
75	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
76	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
77	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
78	The Radiative Association of CH with H2: A Mechanism for Formation of CH3in Interstellar Clouds. Astrophysical Journal, 1997, 485, 195-202.	1.6	31
79	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
80	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
81	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
82	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
83	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
84	FALP and CRESU studies of ionic reactions. International Journal of Mass Spectrometry and Ion Processes, 1995, 149-150, 573-596.	1.9	36
85	Experimental Study of Naphthalene and Anthracene Reactions. Astrophysics and Space Science Library, 1995, , 231-238.	1.0	0
86	Dissociative recombination ofHeH+: A reexamination. Physical Review A, 1994, 49, 4610-4615.	1.0	40
87	Electron attachment to anthracene. A FALP measurement of the rate coefficient at room temperature. Chemical Physics Letters, 1994, 228, 26-31.	1.2	21
88	Rate coefficients for interstellar gas-phase chemistry. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 2193.	1.7	22
89	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
90	A further study of HCO+ dissociative recombination. Journal of Chemical Physics, 1992, 96, 1105-1110.	1.2	58

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91	Dissociative recombination of HCS+ and H3S+ ions studied in a flowing afterglow apparatus. Chemical Physics Letters, 1992, 194, 263-267.	1.2	12
92	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
93	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