

# Ludovic Biennier

## List of Publications by Year in descending order

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44  
papers

1,467  
citations

361413

20  
h-index

315739

38  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1383  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring the Role of PAHs in the Formation of Soot: Pyrene Dimerization. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2962-2967.	4.6	152
2	Understanding Reactivity at Very Low Temperatures: The Reactions of Oxygen Atoms with Alkenes. <i>Science</i> , 2007, 317, 102-105.	12.6	131
3	POLYCYCLIC AROMATIC HYDROCARBONS AND THE DIFFUSE INTERSTELLAR BANDS: A SURVEY. <i>Astrophysical Journal</i> , 2011, 728, 154.	4.5	115
4	Pulsed discharge nozzle cavity ringdown spectroscopy of cold polycyclic aromatic hydrocarbon ions. <i>Journal of Chemical Physics</i> , 2003, 118, 7863-7872.	3.0	114
5	Jet-discharge cavity ring-down spectroscopy of ionized polycyclic aromatic hydrocarbons: progress in testing the PAH hypothesis for the diffuse interstellar band problem. <i>Chemical Physics Letters</i> , 1999, 303, 165-170.	2.6	112
6	Synchrotron SAXS <i>in situ</i> identification of three different size modes for soot nanoparticles in a diffusion flame. <i>Carbon</i> , 2006, 44, 1267-1279.	10.3	66
7	Multiplex integrated cavity output spectroscopy of cold PAH cations. <i>Chemical Physics Letters</i> , 2004, 387, 287-294.	2.6	53
8	Structure and rovibrational analysis of the $[O_2(1^1g)v=0]2 \rightarrow [O_2(3^1g)v=0]2$ transition of the O <sub>2</sub> dimer. <i>Journal of Chemical Physics</i> , 2000, 112, 6309-6321.	3.0	49
9	Rotationally resolved absorption spectrum of the O <sub>2</sub> dimer in the visible range. <i>Chemical Physics Letters</i> , 1998, 288, 734-742.	2.6	47
10	The vibrational energy levels in acetylene. III. 12C <sub>2</sub> D <sub>2</sub> . <i>Journal of Chemical Physics</i> , 1998, 108, 1377-1389.	3.0	43
11	Ultraviolet cavity ring-down spectroscopy of free radicals in etching plasmas. <i>Chemical Physics Letters</i> , 2000, 317, 631-636.	2.6	43
12	High resolution absorption spectroscopy of the $\nu_1=2$ acetylenic overtone bands of propyne: Spectroscopy and dynamics. <i>Journal of Chemical Physics</i> , 1999, 111, 7888-7903.	3.0	42
13	ON THE VOLATILE ENRICHMENTS AND HEAVY ELEMENT CONTENT IN HD189733b. <i>Astrophysical Journal</i> , 2011, 727, 77.	4.5	38
14	Direct Infrared Absorption Spectroscopy of Benzene Dimer. <i>Journal of Physical Chemistry A</i> , 2011, 115, 11263-11268.	2.5	36
15	Characterization of circumstellar carbonaceous dust analogues produced by pyrolysis of acetylene in a porous graphite reactor. <i>Carbon</i> , 2009, 47, 3295-3305.	10.3	32
16	Local Mode Effects on the High-Resolution Overtone Spectrum of H <sub>2</sub> S around 12 500 cm <sup>-1</sup> . <i>Journal of Molecular Spectroscopy</i> , 1997, 184, 288-299.	1.2	31
17	Reaction of Anthracene with CH Radicals: An Experimental Study of the Kinetics between 58 and 470 K. <i>Journal of Physical Chemistry A</i> , 2006, 110, 3132-3137.	2.5	31
18	Low temperature reaction kinetics of CN <sup>+</sup> +HC <sub>3</sub> N and implications for the growth of anions in Titan's atmosphere. <i>Icarus</i> , 2014, 227, 123-131.	2.5	31

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19	Low Temperature Kinetics of the First Steps of Water Cluster Formation. <i>Physical Review Letters</i> , 2016, 116, 113401.	7.8	26
20	Flow dynamics of a pulsed planar expansion. <i>Chemical Physics</i> , 2006, 326, 445-457.	1.9	25
21	Numerical investigation of the discharge characteristics of the pulsed discharge nozzle. <i>Physical Review E</i> , 2005, 71, 036409.	2.1	24
22	Laboratory measurements of the recombination of PAH ions with electrons: implications for the PAH charge state in interstellar clouds. <i>Faraday Discussions</i> , 2006, 133, 289.	3.2	20
23	The absorption spectrum of $^{12}\text{C}_2\text{H}_2$ between 12800 and 18500 $\text{cm}^{-1}$ II. Rotational analysis. <i>Molecular Physics</i> , 1997, 90, 807-816.	1.7	19
24	Plasma structure in a pulsed discharge environment. <i>Plasma Sources Science and Technology</i> , 2003, 12, 295-301.	3.1	19
25	High temperature reaction kinetics of $\text{CN}(v=0)$ with $\text{C}_2\text{H}_4$ and $\text{C}_2\text{H}_6$ and vibrational relaxation of $\text{CN}(v=1)$ with Ar and He. <i>Journal of Chemical Physics</i> , 2013, 138, 124308.	3.0	17
26	New investigation of the $\nu_2$ C-H stretching region of $^{12}\text{CH}_4$ through the analysis of high temperature infrared emission spectra. <i>Journal of Chemical Physics</i> , 2018, 148, 134306.	3.0	17
27	Shock-wave processing of $\text{C}_{60}$ in hydrogen. <i>Astronomy and Astrophysics</i> , 2017, 599, A42.	5.1	15
28	Elusive anion growth in Titan's atmosphere: Low temperature kinetics of the $\text{C}_3\text{N}^+ + \text{HC}_3\text{N}$ reaction. <i>Icarus</i> , 2016, 271, 194-201.	2.5	14
29	Recombination of polycyclic aromatic hydrocarbon photoions with electrons in a flowing afterglow plasma. <i>Journal of Chemical Physics</i> , 2005, 123, 104303.	3.0	13
30	High Resolution Spectrum of the $(3\sigma)$ Band of the $^{16}\text{O}^+ \text{X}^3\Sigma^+ \text{g}^-$ Red Atmospheric System of Oxygen. <i>Journal of Molecular Spectroscopy</i> , 1998, 188, 248-250.	1.2	12
31	Low-Temperature Reactivity of $\text{C}_2\text{N}^+$ Anions with Polar Molecules. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2957-2961.	4.6	12
32	The $\text{C}_3\text{N}^+$ ion in Titan's atmosphere: Contribution of ethane, propane, butane and complex hydrogenated organics. <i>Icarus</i> , 2020, 339, 113571.	2.5	11
33	Insights into the role of polycyclic aromatic hydrocarbon condensation in haze formation in Jupiter's atmosphere. <i>Astronomy and Astrophysics</i> , 2011, 532, A40.	5.1	10
34	High-temperature kinetics of the reaction between CN and hydrocarbons using a novel high-enthalpy flow tube. <i>International Journal of Chemical Kinetics</i> , 2012, 44, 753-766.	1.6	10
35	A new instrument for kinetics and branching ratio studies of gas phase collisional processes at very low temperatures. <i>Review of Scientific Instruments</i> , 2021, 92, 014102.	1.3	9
36	Modeling the influence of anode-cathode spacing in a pulsed discharge nozzle. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005, 60, 1442-1449.	2.9	8

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37	Plasma in a pulsed discharge environment. IEEE Transactions on Plasma Science, 2005, 33, 554-555.	1.3	5
38	A mass-selective ion transfer line coupled with a uniform supersonic flow for studying ion-molecule reactions at low temperatures. Journal of Chemical Physics, 2019, 150, 164201.	3.0	5
39	Plasma structure in a pulsed discharge environment. Plasma Sources Science and Technology, 2003, 12, 619-619.	3.1	4
40	Propane clusters in Titan's lower atmosphere: insights from a combined theory/laboratory study. Monthly Notices of the Royal Astronomical Society, 2019, 488, 676-684.	4.4	2
41	Insights into the condensation of PAHs in the envelope of IRC +10216. EAS Publications Series, 2011, 46, 191-199.	0.3	1
42	Chemistry of nitrile anions in the interstellar medium. AIP Conference Proceedings, 2015, , .	0.4	1
43	Absorption Spectroscopy of Solid-Phase Fullerene C <sub>60</sub> between 1.65 and 2.78 $\mu$ m. ACS Earth and Space Chemistry, 2020, 4, 1540-1548.	2.7	0
44	Kinetics and Branching for the Reactions of N <sub>2</sub> <sup>+</sup> with C <sub>3</sub> H <sub>4</sub> Isomers at Low Temperatures and Implications for Titan's Atmosphere. ACS Earth and Space Chemistry, 2022, 6, 1227-1238.	2.7	0