

# Rafael Escribano

## List of Publications by Year in descending order

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66  
papers

1,444  
citations

331670

21  
h-index

361022

35  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1758  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the spectral features of dangling bonds in CH <sub>4</sub> /H <sub>2</sub> O amorphous ice mixtures. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 9532-9538.	2.8	6
2	Density and porosity of amorphous water ice by DFT methods. <i>Chemical Physics Letters</i> , 2020, 745, 137222.	2.6	3
3	Prediction of the near-IR spectra of ices by ab initio molecular dynamics. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9433-9440.	2.8	2
4	Perceptions of ecological and aesthetic quality by natural resource professionals and local people. A qualitative exploration in a mountainous landscape (La Rioja, Spain). <i>Landscape Research</i> , 2019, 44, 241-255.	1.6	10
5	Simulations and spectra of water in CO matrices. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 7280-7287.	2.8	1
6	Vibrational spectra and physico-chemical properties of astrophysical analogs. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26582-26588.	2.8	4
7	Physical and spectroscopic properties of pure C <sub>2</sub> H <sub>4</sub> and CH <sub>4</sub> :C <sub>2</sub> H <sub>4</sub> ices. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 466, 1894-1902.	4.4	13
8	OPTICAL CONSTANTS AND BAND STRENGTHS OF CH <sub>4</sub> :C <sub>2</sub> H <sub>6</sub> ICES IN THE NEAR- AND MID-INFRARED. <i>Astrophysical Journal</i> , 2016, 825, 156.	4.5	15
9	Theoretical model of the interaction of glycine with hydrogenated amorphous carbon (HAC). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28966-28976.	2.8	6
10	Hydration of HNO <sub>3</sub> •HOCl clusters: Bonding properties. <i>Computational and Theoretical Chemistry</i> , 2014, 1038, 71-77.	2.5	2
11	The formation of carbamate ions in interstellar ice analogues. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 3371-3380.	2.8	18
12	On the infrared activation of the breathing mode of methane in ice. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16694-16700.	2.8	11
13	Stability of carbonaceous dust analogues and glycine under UV irradiation and electron bombardment. <i>Faraday Discussions</i> , 2014, 168, 267-285.	3.2	27
14	Predicting the infrared band profiles for CO <sub>2</sub> cloud particles on Mars. <i>Icarus</i> , 2013, 223, 591-601.	2.5	11
15	OPTICAL CONSTANTS OF NH <sub>3</sub> AND NH <sub>3</sub> :N <sub>2</sub> AMORPHOUS ICES IN THE NEAR-INFRARED AND MID-INFRARED REGIONS. <i>Astrophysical Journal</i> , 2013, 777, 26.	4.5	23
16	Visual significance as a factor influencing perceived risks: cost-effectiveness analysis for overhead high-voltage power-line redesign. <i>Impact Assessment and Project Appraisal</i> , 2013, 31, 291-304.	1.8	7
17	Crystallization of CO <sub>2</sub> ice and the absence of amorphous CO <sub>2</sub> ice in space. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 12899-12904.	7.1	53
18	CYANATE ION IN COMPACT AMORPHOUS WATER ICE. <i>Astrophysical Journal</i> , 2012, 759, 90.	4.5	7

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19	Ice structures, patterns, and processes: A view across the icefields. <i>Reviews of Modern Physics</i> , 2012, 84, 885-944.	45.6	277
20	Solid L-Alanine: Spectroscopic properties and theoretical calculations. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 1266-1275.	2.3	14
21	An infrared study of solid glycine in environments of astrophysical relevance. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 12268.	2.8	43
22	Proton transfer and autoionization in HNO <sub>3</sub> ·HCl·(H <sub>2</sub> O) <sub>n</sub> particles. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 18145.	2.8	6
23	Spectroscopic investigation of nitric acid monohydrate. <i>Molecular Physics</i> , 2011, 109, 2083-2093.	1.7	1
24	HDO INFRARED DETECTION SENSITIVITY AND D/H ISOTOPIC EXCHANGE IN AMORPHOUS AND CRYSTALLINE ICE. <i>Astrophysical Journal</i> , 2011, 738, 133.	4.5	14
25	AMMONIUM AND FORMATE IONS IN INTERSTELLAR ICE ANALOGS. <i>Astrophysical Journal</i> , 2010, 724, 539-545.	4.5	32
26	Interaction of CH <sub>4</sub> and H <sub>2</sub> O in ice mixtures. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3164.	2.8	38
27	INFRARED SPECTRA AND THERMODYNAMIC PROPERTIES OF CO <sub>2</sub> /METHANOL ICES. <i>Astrophysical Journal</i> , 2009, 690, 486-495.	4.5	25
28	Theoretical Study on Hydrogen Bond Effects in IR Spectra of High and Low Temperature Phases of Nitric Acid Dihydrate. <i>ChemPhysChem</i> , 2009, 10, 3229-3238.	2.1	2
29	Phases of Solid Methanol. <i>Journal of Physical Chemistry A</i> , 2009, 113, 3321-3329.	2.5	34
30	SPECTROSCOPIC EFFECTS IN CH <sub>4</sub> /H <sub>2</sub> O ICES. <i>Astrophysical Journal</i> , 2009, 703, 2101-2107.	4.5	28
31	Trapping and adsorption of CO <sub>2</sub> in amorphous ice: A FTIR study. <i>Icarus</i> , 2008, 197, 599-605.	2.5	34
32	Ices of CO <sub>2</sub> /H <sub>2</sub> O Mixtures. Reflection Absorption IR Spectroscopy and Theoretical Calculations. <i>Journal of Physical Chemistry A</i> , 2008, 112, 457-465.	2.5	21
33	The low-frequency Raman and IR spectra of nitric acid hydrates. <i>Vibrational Spectroscopy</i> , 2007, 43, 254-259.	2.2	11
34	Orientation Effects on Nitric Acid Dihydrate Films. <i>Journal of Physical Chemistry B</i> , 2006, 110, 7396-7401.	2.6	9
35	Nineteenth colloquium on high resolution molecular spectroscopy Salamanca 11-16 September 2005. <i>Molecular Physics</i> , 2006, 104, 2579-2580.	1.7	2
36	Vibrational spectra of crystalline hydrates of atmospheric relevance: Bands of hydrated protons. <i>Chemical Physics Letters</i> , 2006, 427, 300-304.	2.6	24

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37	Comment on "Theoretical investigation of the coexistence of $\hat{1}\pm$ and $\hat{1}^2$ -nitric acid trihydrates (NAT) molecular conformations" [Chem. Phys. 324 (2006) 210]. Chemical Physics, 2006, 331, 186-188.	1.9	2
38	On the use of wavelet filtering and correlation techniques in atmospheric condensed phase spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2005, 61, 1759-1766.	3.9	3
39	The structure and vibrational frequencies of crystalline HCl trihydrate. Journal of Molecular Structure, 2005, 742, 147-152.	3.6	16
40	The $\hat{1}\frac{1}{2}19a$ band of fluorobenzene. Journal of Molecular Spectroscopy, 2004, 223, 80-83.	1.2	6
41	The HCl hexahydrate: RAIR spectra and theoretical investigation. Chemical Physics Letters, 2004, 396, 335-340.	2.6	14
42	Investigation of orientation effects in films of nitric acid trihydrate. Physical Chemistry Chemical Physics, 2004, 6, 4047-4055.	2.8	10
43	The Br $\hat{A}$ -O bond in halogen oxides $\hat{A}$ - Empirical force constants and electronic characteristics. Canadian Journal of Chemistry, 2004, 82, 998-1005.	1.1	2
44	First-Principles Infrared Spectrum of Nitric Acid and Nitric Acid Monohydrate Crystals. Journal of Physical Chemistry A, 2004, 108, 10535-10541.	2.5	41
45	The structure and vibrational frequencies of crystalline nitric acid. Chemical Physics Letters, 2003, 378, 218-223.	2.6	26
46	A Theoretical Study of the Structure and Spectra of Nitric Acid Hydrates Crystals. Journal of Physical Chemistry B, 2003, 107, 10608-10614.	2.6	27
47	Experimental Studies of Amorphous and Polycrystalline Ice Films Using FT-RAIRS. Journal of Physical Chemistry B, 2003, 107, 11098-11108.	2.6	46
48	Fringe-field effects on the time evolution of pendular states. Physical Review A, 2000, 62, .	2.5	13
49	Structure and Spectra of HOCl(H <sub>2</sub> O) <sub>n</sub> Clusters, n= 1 $\hat{A}$ ^4: $\hat{A}$ Theoretical Calculation. Journal of Physical Chemistry A, 2000, 104, 600-609.	2.5	18
50	Room temperature absorption spectroscopy of GeH <sub>2</sub> near 585 nm. Chemical Physics Letters, 1999, 315, 397-404.	2.6	19
51	The Stimulated Raman Spectrum of Symmetric <sup>13</sup> C Cyanogen, <sup>13</sup> C <sub>2</sub> N <sub>2</sub> . Journal of Molecular Spectroscopy, 1999, 193, 174-182.	1.2	4
52	The [ITAL]ISO[/ITAL]/SWS Spectrum of IRC +10216: The Vibrational Bands of C[TINF]2[/TINF]H[TINF]2[/TINF] and HCN. Astrophysical Journal, 1999, 526, L41-L44.	4.5	73
53	Absorption spectroscopy of SiH <sub>2</sub> near 640 nm. Journal of Chemical Physics, 1998, 108, 6249-6257.	3.0	43
54	The Stimulated Raman Spectrum of Cyanogen. Journal of Molecular Spectroscopy, 1997, 186, 144-154.	1.2	10

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55	The Force Field of Bromoform: A Theoretical and Experimental Investigation. The Journal of Physical Chemistry, 1996, 100, 16058-16065.	2.9	15
56	The $\hat{\nu}_{21}$ band of ketene. Journal of Chemical Physics, 1994, 101, 937-949.	3.0	19
57	Intensities and dipole moment derivatives of the fundamental bands of $^{35}\text{ClO}_2$ and an intensity analysis of the $\hat{\nu}_{21}$ band. Journal of Molecular Spectroscopy, 1992, 156, 89-97.	1.2	9
58	The ground state constants of ketene. Journal of Molecular Spectroscopy, 1992, 156, 501-503.	1.2	35
59	The $\hat{\nu}_{22}$ and $\hat{\nu}_{23}$ bands and ground state constants of OClO. Journal of Molecular Spectroscopy, 1992, 155, 25-43.	1.2	26
60	$\hat{\nu}_{26}$ and $\hat{\nu}_{28}$ infrared bands and force field of disilane. Vibrational Spectroscopy, 1992, 4, 15-23.	2.2	1
61	Convergence properties of a perturbative treatment for Coriolis coupling in symmetric top molecules. Journal of Molecular Spectroscopy, 1991, 148, 136-148.	1.2	3
62	Infrared spectrum of monoisotopic germyl bromide in the $5\ \hat{\nu}_{4m}$ region. Journal of Molecular Spectroscopy, 1991, 146, 83-96.	1.2	4
63	High-resolution infrared spectrum of the $\hat{\nu}_{21}$ band of OClO. Journal of Molecular Spectroscopy, 1991, 148, 346-370.	1.2	23
64	The $\hat{\nu}_{22}$ and $\hat{\nu}_{24}$ IR bands of $\text{SO}_3$ . Journal of Molecular Spectroscopy, 1989, 138, 602-613.	1.2	33
65	Spectroscopic constants for the $\hat{\nu}_{29}$ infrared band of $\text{HNO}_3$ . Journal of Molecular Spectroscopy, 1988, 131, 195-200.	1.2	48
66	Out-of-plane vibrational assignments and potential function of pyrrole and its deuterated derivatives. Journal of the Chemical Society, Faraday Transactions 2, 1985, 81, 653.	1.1	20