

Perry A Gerakines

List of Publications by Year in descending order

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56
papers

3,577
citations

236925

25
h-index

149698

56
g-index

56
all docs

56
docs citations

56
times ranked

2176
citing authors

#	ARTICLE	IF	CITATIONS
1	Observations of the Icy Universe. <i>Annual Review of Astronomy and Astrophysics</i> , 2015, 53, 541-581.	24.3	654
2	An Inventory of Interstellar Ices toward the Embedded Protostar W33A. <i>Astrophysical Journal</i> , 2000, 536, 347-356.	4.5	371
3	Observations of Solid Carbon Dioxide in Molecular Clouds with the Infrared Space Observatory. <i>Astrophysical Journal</i> , 1999, 522, 357-377.	4.5	250
4	Interstellar Extinction and Polarization in the Taurus Dark Clouds: The Optical Properties of Dust near the Diffuse/Dense Cloud Interface. <i>Astrophysical Journal</i> , 2001, 547, 872-884.	4.5	236
5	Ultraviolet photolysis and proton irradiation of astrophysical ice analogs containing hydrogen cyanide. <i>Icarus</i> , 2004, 170, 202-213.	2.5	159
6	Approaching the Interstellar Grain Organic Refractory Component. <i>Astrophysical Journal</i> , 1995, 455, .	4.5	149
7	Detection of Abundant CO [TINF]2 [TINF] Ice in the Quiescent Dark Cloud Medium toward Elias 16. <i>Astrophysical Journal</i> , 1998, 498, L159-L163.	4.5	143
8	Infrared Spectroscopy of Dust in the Diffuse Interstellar Medium toward Cygnus OB2 No. 12. <i>Astrophysical Journal</i> , 1997, 490, 729-734.	4.5	137
9	The Abundance of Carbon Dioxide Ice in the Quiescent Intracloud Medium. <i>Astrophysical Journal</i> , 2007, 655, 332-341.	4.5	111
10	The Formation of Cyanate Ion (OCN ⁻) in Interstellar Ice Analogs. <i>Astrophysical Journal</i> , 2001, 550, 1140-1150.	4.5	101
11	Processing of Icy Mantles in Protostellar Envelopes. <i>Astrophysical Journal</i> , 1998, 498, 716-727.	4.5	96
12	The Strengths of Near-Infrared Absorption Features Relevant to Interstellar and Planetary Ices. <i>Astrophysical Journal</i> , 2005, 620, 1140-1150.	4.5	89
13	Solid Carbon Dioxide in Regions of Low-Mass Star Formation. <i>Astrophysical Journal</i> , 2001, 558, 185-193.	4.5	78
14	Spitzer Observations of CO ₂ Ice toward Field Stars in the Taurus Molecular Cloud. <i>Astrophysical Journal</i> , 2005, 627, L33-L36.	4.5	78
15	Infrared spectra and optical constants of astronomical ices: II. Ethane and ethylene. <i>Icarus</i> , 2014, 243, 148-157.	2.5	74
16	Carbon Suboxide in Astrophysical Ice Analogs. <i>Icarus</i> , 2001, 154, 372-380.	2.5	73
17	In situ measurements of the radiation stability of amino acids at 15-140 K. <i>Icarus</i> , 2012, 220, 647-659.	2.5	56
18	INFRARED SPECTRA AND OPTICAL CONSTANTS OF ELUSIVE AMORPHOUS METHANE. <i>Astrophysical Journal Letters</i> , 2015, 805, L20.	8.3	49

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19	FIRST INFRARED BAND STRENGTHS FOR AMORPHOUS CO ₂ , AN OVERLOOKED COMPONENT OF INTERSTELLAR ICES. <i>Astrophysical Journal Letters</i> , 2015, 808, L40.	8.3	48
20	Investigation of pyridine carboxylic acids in CM2 carbonaceous chondrites: Potential precursor molecules for ancient coenzymes. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 136, 1-12.	3.9	47
21	THE NATURE OF CARBON DIOXIDE BEARING ICES IN QUIESCENT MOLECULAR CLOUDS. <i>Astrophysical Journal</i> , 2009, 695, 94-100.	4.5	42
22	IR spectra and properties of solid acetone, an interstellar and cometary molecule. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 193, 33-39.	3.9	37
23	Photoelectric Emission Measurements on the Analogs of Individual Cosmic Dust Grains. <i>Astrophysical Journal</i> , 2006, 645, 324-336.	4.5	35
24	Glycine's Radiolytic Destruction in Ices: First <i>in situ</i> Laboratory Measurements for Mars. <i>Astrobiology</i> , 2013, 13, 647-655.	3.0	34
25	THE EFFECTS OF EXPERIMENTAL CONDITIONS ON THE REFRACTIVE INDEX AND DENSITY OF LOW-TEMPERATURE ICES: SOLID CARBON DIOXIDE. <i>Astrophysical Journal</i> , 2016, 827, 98.	4.5	28
26	Infrared spectra and optical constants of astronomical ices: III. Propane, propylene, and propyne. <i>Icarus</i> , 2021, 354, 114033.	2.5	26
27	A Modified Algorithm and Open-source Computational Package for the Determination of Infrared Optical Constants Relevant to Astrophysics. <i>Astrophysical Journal</i> , 2020, 901, 52.	4.5	26
28	Direct measurements of infrared intensities of HCN and H ₂ O+HCN ices for laboratory and observational astrochemistry. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 509, 3515-3522.	4.4	24
29	THE THERMAL EVOLUTION OF ICES IN THE ENVIRONMENTS OF NEWLY FORMED STARS: THE CO ₂ DIAGNOSTIC. <i>Astrophysical Journal</i> , 2011, 730, 124.	4.5	23
30	Irradiated benzene ice provides clues to meteoritic organic chemistry. <i>Icarus</i> , 2013, 226, 1201-1209.	2.5	23
31	Infrared Spectra and Interstellar Sulfur: New Laboratory Results for H ₂ S and Four Malodorous Thiol Ices. <i>Astrophysical Journal</i> , 2018, 867, 138.	4.5	22
32	Millimeter/Submillimeter Spectroscopic Detection of Desorbed Ices: A New Technique in Laboratory Astrochemistry. <i>Journal of Physical Chemistry A</i> , 2019, 123, 8702-8708.	2.5	22
33	Apolar ices. <i>Faraday Discussions</i> , 1998, 109, 463-474.	3.2	21
34	Testing Densities and Refractive Indices of Extraterrestrial Ice Components Using Molecular Structures—Organic Compounds and Molar Refractions. <i>Astrophysical Journal</i> , 2020, 891, 22.	4.5	20
35	Activation of weak IR fundamentals of two species of astrochemical interest in the T _d point group—the importance of amorphous ices. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 12545-12552.	2.8	19
36	Recent results from the Leiden Observatory Laboratory: (a) band strengths in mixed ices; (b) UV photolysis of solid methanol. <i>Planetary and Space Science</i> , 1995, 43, 1253-1256.	1.7	16

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37	Propynal, an interstellar molecule with an exceptionally strong C \equiv C infrared band – laboratory infrared data and applications. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 482, 4009-4017.	4.4	16
38	Simultaneous fitting of Mars Mössbauer data. <i>Hyperfine Interactions</i> , 2009, 188, 113-120.	0.5	15
39	Laboratory Studies of Astronomical Ices: Reaction Chemistry and Spectroscopy. <i>Accounts of Chemical Research</i> , 2021, 54, 280-290.	15.6	15
40	The radiation stability of glycine in solid CO ₂ – In situ laboratory measurements with applications to Mars. <i>Icarus</i> , 2015, 252, 466-472.	2.5	13
41	Propanal, an interstellar aldehyde – first infrared band strengths and other properties of the amorphous and crystalline forms. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 4606-4615.	4.4	13
42	Sublimation of Laboratory Ices Millimeter/Submillimeter Experiment (SubLIME): Structure-specific Identifications of Products from UV-photolyzed Methanol Ice. <i>Astrophysical Journal</i> , 2021, 913, 61.	4.5	12
43	NEAR-INFRARED BAND STRENGTHS OF MOLECULES DILUTED IN N ₂ AND H ₂ O ICE MIXTURES RELEVANT TO INTERSTELLAR AND PLANETARY ICES. <i>Astrophysical Journal</i> , 2012, 759, 74.	4.5	11
44	Fully Sampled Maps of Ices and Silicates in Front of Cepheus A East with the Spitzer Space Telescope. <i>Astrophysical Journal</i> , 2008, 672, 361-370.	4.5	9
45	Ammonia Ices Revisited: New IR Intensities and Optical Constants for Solid NH ₃ . <i>Astrophysical Journal</i> , 2022, 925, 156.	4.5	8
46	Benzene Vapor Pressures at Titan Temperatures: First Microbalance Results. <i>Planetary Science Journal</i> , 2022, 3, 120.	3.6	8
47	The Radiation Stability of Thymine in Solid H ₂ O. <i>Astrobiology</i> , 2020, 20, 956-963.	3.0	7
48	Metabolic precursors in astrophysical ice analogs: implications for meteorites and comets. <i>Chemical Communications</i> , 2015, 51, 11787-11790.	4.1	6
49	Molecular identifications in experiments with astronomical ice analogues: new data, old strategies, and the N ₂ +Acetone system. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 861-871.	4.4	5
50	A New Method for Simulating Photoprocesses in Astrochemical Models. <i>Astrophysical Journal</i> , 2021, 910, 72.	4.5	5
51	Radiolytic Destruction of Uracil in Interstellar and Solar System Ices. <i>Astrobiology</i> , 2021, , .	3.0	5
52	Infrared Spectral Intensities of Amine Ices, Precursors to Amino Acids. <i>Astrobiology</i> , 2022, 22, 452-461.	3.0	4
53	A review of interstellar polarization properties and recent measurements toward the chameleon I and taurus dark clouds. <i>Planetary and Space Science</i> , 1995, 43, 1325-1328.	1.7	3
54	Technology Considerations Relevant to an Exobiology Surface-Science Approach for Europa. <i>Astrobiology</i> , 2001, 1, 467-476.	3.0	2

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55	Infrared Properties of Isolated Water Ice. Globular Clusters - Guides To Galaxies, 1996, , 309-312.	0.1	2
56	Gas Analyzer for Monitoring H ₂ O and CO ₂ Partial Pressures in Space Instrumentation. IEEE Sensors Journal, 2022, 22, 12576-12587.	4.7	1