Christopher N Shingledecker

List of Publications by Year
in descending order

46 papers	1,864 citations	257450 24 h-index	345221 36 g-index
46 all docs	46 docs citations	46 times ranked	1113 citing authors

#	Article	IF	Citations
1	Detection of the aromatic molecule benzonitrile (c -C ₆ H ₅ CN) in the interstellar medium. Science, 2018, 359, 202-205.	12.6	370
2	Detection of two interstellar polycyclic aromatic hydrocarbons via spectral matched filtering. Science, 2021, 371, 1265-1269.	12.6	236
3	A study of interstellar aldehydes and enols as tracers of a cosmic ray-driven nonequilibrium synthesis of complex organic molecules. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7727-7732.	7.1	99
4	Interstellar detection of the highly polar five-membered ring cyanocyclopentadiene. Nature Astronomy, 2021, 5, 176-180.	10.1	96
5	Discovery of the Pure Polycyclic Aromatic Hydrocarbon Indene (c-C9H8) with GOTHAM Observations of TMC-1. Astrophysical Journal Letters, 2021, 913, L18.	8.3	96
6	On Cosmic-Ray-driven Grain Chemistry in Cold Core Models. Astrophysical Journal, 2018, 861, 20.	4.5	76
7	ALMA Detection of Interstellar Methoxymethanol (CH₃OCH₂OH). Astrophysical Journal Letters, 2017, 851, L46.	8.3	66
8	Early Science from GOTHAM: Project Overview, Methods, and the Detection of Interstellar Propargyl Cyanide (HCCCH₂CN) in TMC-1. Astrophysical Journal Letters, 2020, 900, L10.	8.3	60
9	A Combined Experimental and Theoretical Study on the Formation of Interstellar Propylene Oxide (CH₃CHCH₂O)â€”A Chiral Molecule. Astrophysical Journal, 2018, 860, 108.	4.5	54
10	A general method for the inclusion of radiation chemistry in astrochemical models. Physical Chemistry Chemical Physics, 2018, 20, 5359-5367.	2.8	51
11	INVESTIGATING THE MINIMUM ENERGY PRINCIPLE IN SEARCHES FOR NEW MOLECULAR SPECIESâ€”THE CASE OF H₂C₃O ISOMERS. Astrophysical Journal, 2015, 799, 34.	4.5	49
12	An investigation of spectral line stacking techniques and application to the detection of HC11N. Nature Astronomy, 2021, 5, 188-196.	10.1	49
13	Ubiquitous aromatic carbon chemistry at the earliest stages of star formation. Nature Astronomy, 2021, 5, 181-187.	10.1	49
14	Efficient Production of S₈ in Interstellar Ices: The Effects of Cosmic-Ray-driven Radiation Chemistry and Nondiffusive Bulk Reactions. Astrophysical Journal, 2020, 888, 52.	4.5	45
15	Low-temperature gas-phase formation of indene in the interstellar medium. Science Advances, 2021, 7, .	10.3	42
16	Non-detection of HC₁₁N towards TMC-1: constraining the chemistry of large carbon-chain molecules. Monthly Notices of the Royal Astronomical Society, 2016, 463, 4175-4183.	4.4	38
17	Detection of Interstellar HC₅O in TMC-1 with the Green Bank Telescope. Astrophysical Journal Letters, 2017, 843, L28.	8.3	36
18	The Case of H₂C₃O Isomers, Revisited: Solving the Mystery of the Missing Propadienone. Astrophysical Journal, 2019, 878, 80.	4.5	32

#	Article	IF	Citations
19	Detection of Interstellar HC₄NC and an Investigation of Isocyanopolyyne Chemistry under TMC-1 Conditions. Astrophysical Journal Letters, 2020, 900, L9.	8.3	32
20	On Simulating the Proton-irradiation of O₂ and H₂O Ices Using Astrochemical-type Models, with Implications for Bulk Reactivity. Astrophysical Journal, 2019, 876, 140.	4.5	30
21	First Results of an ALMA Band 10 Spectral Line Survey of NGC 6334I: Detections of Glycolaldehyde (HC(O)CH₂OH) and a New Compact Bipolar Outflow in HDO and CS. Astrophysical Journal Letters, 2018, 863, L35.	8.3	29
22	CSO AND CARMA OBSERVATIONS OF L1157. I. A DEEP SEARCH FOR HYDROXYLAMINE (NH₂OH). Astrophysical Journal, 2015, 812, 76.	4.5	28
23	A new model of the chemistry of ionizing radiation in solids: CIRIS. Physical Chemistry Chemical Physics, 2017, 19, 11043-11056.	2.8	26
24	Isomers in Interstellar Environments. I. The Case of Z- and E-cyanomethanimine. Astrophysical Journal, 2020, 897, 158.	4.5	25
25	Modeling C-shock Chemistry in Isolated Molecular Outflows. Astrophysical Journal, 2019, 881, 32.	4.5	24
26	CSO AND CARMA OBSERVATIONS OF L1157. II. CHEMICAL COMPLEXITY IN THE SHOCKED OUTFLOW. Astrophysical Journal, 2016, 827, 21.	4.5	20
27	Detection of interstellar H₂CCCHC₃N. Astronomy and Astrophysics, 2021, 652, L12.	5.1	18
28	The role of radiolysis in the modelling of C2H4O2 isomers and dimethyl ether in cold dark clouds. Monthly Notices of the Royal Astronomical Society, 2020, 500, 3414-3424.	4.4	17
29	ON THE INFERENCE OF THE COSMIC-RAY IONIZATION RATE Î¶ FROM THE HCO⁺-to-DCO⁺ ABUNDANCE RATIO: THE EFFECT OF NUCLEAR SPIN. Astrophysical Journal, 2016, 830, 151.	4.5	15
30	Searches for Interstellar HCCSH and H₂CCS. Astrophysical Journal, 2019, 883, 201.	4.5	13
31	Discovery of Interstellar trans-cyanovinylacetylene (HC â‰¡ CCH = CHC â‰¡ N) and vinylcyanoacetylene (H₂C = CHC₃N) in GOTHAM Observations of TMC-1. Astrophysical Journal Letters, 2021, 908, L11.	8.3	13
32	Cyclopropenone (c-C₃H₂O) as a Tracer of the Nonequilibrium Chemistry Mediated by Galactic Cosmic Rays in Interstellar Ices. Astrophysical Journal, 2021, 911, 24.	4.5	13
33	Cosmic-Ray Tracks in Astrophysical Ices: Modeling with the Geant4-DNA Monte Carlo Toolkit. Astrophysical Journal, 2020, 904, 189.	4.5	7
34	A New Method for Simulating Photoprocesses in Astrochemical Models. Astrophysical Journal, 2021, 910, 72.	4.5	5
35	Dense Molecular Clouds in the Crab Supernova Remnant. Astrophysical Journal, 2022, 925, 59.	4.5	3
36	A Search for Light Hydrides in the Envelopes of Evolved Stars. Astrophysical Journal, 2020, 901, 22.	4.5	2

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37	Radiation chemistry in astrochemical models: From the laboratory to the ISM. Proceedings of the International Astronomical Union, 2019, 15, 454-455.	0.0	0
38	A RIGOROUS K/KA-BAND HUNT FOR AROMATIC MOLECULES (ARKHAM): UBIQUITOUS AROMATIC CARBON CHEMISTRY AT THE EARLIEST STAGES OF STAR FORMATION. , 2021, , .		0
39	INDIVIDUAL DETECTIONS OF POLYCYCLIC AROMATIC HYDROCARBONS IN TMC-1. , 2021, , .		0
40	SPECTRAL STACKING AND MATCHED FILTERING AS A RIGOROUS DETECTION TECHNIQUE FOR INTERSTELLAR MOLECULES. , 2021, , .		0
41	A SEARCH FOR LIGHT HYDRIDES IN THE ENVELOPES OF EVOLVED STARS. , 2021, , .		0
42	CARMA OBSERVATIONS OF L1157: CHEMICAL COMPLEXITY IN THE SHOCKED OUTFLOW. , 2016, , .		0
43	TIME-SENSITIVE CHEMICAL TRACERS WITHIN SHOCKED ASTROPHYSICAL SOURCES. , 2017, , .		0
44	A NEW MODEL OF THE CHEMISTRY OF IONIZING RADIATION IN SOLIDS. , 2017, , .		0
45	A SEARCH FOR LIGHT HYDRIDES IN THE ENVELOPES OF EVOLVED STARS. , 2020, , .		0
46	EARLY RESULTS FROM A RIGOROUS K/KA-BAND HUNT FOR AROMATIC MOLECULES (ARKHAM): UBIQUITOUS AROMATIC CARBON CHEMISTRY AT THE EARLIEST STAGES OF STAR FORMATION. , 2020, , .		0