

# John H Black

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1063252/publications.pdf>

Version: 2024-02-01

73  
papers

3,635  
citations

186265

28  
h-index

128289

60  
g-index

76  
all docs

76  
docs citations

76  
times ranked

3156  
citing authors

#	ARTICLE	IF	CITATIONS
1	The photodissociation and chemistry of interstellar CO. <i>Astrophysical Journal</i> , 1988, 334, 771.	4.5	791
2	Fluorescent excitation of interstellar H <sub>2</sub> . <i>Astrophysical Journal</i> , 1987, 322, 412.	4.5	498
3	I(CO)/N(H <sub>2</sub> ) conversions and molecular gas abundances in spiral and irregular galaxies. <i>Astrophysical Journal</i> , 1988, 325, 389.	4.5	287
4	The Nine Lives of Cosmic Rays in Galaxies. <i>Annual Review of Astronomy and Astrophysics</i> , 2015, 53, 199-246.	24.3	218
5	<i>HERSCHEL</i> SURVEY OF GALACTIC OH <sup>+</sup> , H <sub>2</sub> O <sup>+</sup> , AND H <sub>3</sub> O <sup>+</sup> : PROBING THE MOLECULAR HYDROGEN FRACTION AND COSMIC-RAY IONIZATION RATE. <i>Astrophysical Journal</i> , 2015, 800, 40.	4.5	183
6	<i>HERSCHEL</i> MEASUREMENTS OF MOLECULAR OXYGEN IN ORION. <i>Astrophysical Journal</i> , 2011, 737, 96.	4.5	138
7	Interstellar C <sub>2</sub> , CH, and CN in translucent molecular clouds. <i>Astrophysical Journal</i> , 1989, 340, 273.	4.5	128
8	P CYGNI PROFILES OF MOLECULAR LINES TOWARD ARP 220 NUCLEI. <i>Astrophysical Journal</i> , 2009, 700, L104-L108.	4.5	84
9	The Leiden Atomic and Molecular Database (LAMDA): Current Status, Recent Updates, and Future Plans. <i>Atoms</i> , 2020, 8, 15.	1.6	59
10	Molecules at early epochs. IV - Confirmation of the detection of H <sub>2</sub> toward PKS 0528 - 250. <i>Astrophysical Journal</i> , 1988, 324, 267.	4.5	58
11	Molecules in harsh environments. <i>Faraday Discussions</i> , 1998, 109, 257-266.	3.2	57
12	AN OBSERVATIONAL DETERMINATION OF THE PROTON TO ELECTRON MASS RATIO IN THE EARLY UNIVERSE. <i>Astrophysical Journal</i> , 2009, 703, 1648-1662.	4.5	53
13	Detection of extragalactic argonium, ArH <sup>+</sup> , toward PKS 1830-211. <i>Astronomy and Astrophysics</i> , 2015, 582, L4.	5.1	52
14	Oscillator Strengths and Ground-State Photoionization Cross-Sections for Mg <sup>+</sup> and Ca <sup>+</sup> . <i>Astrophysical Journal</i> , 1972, 177, 567.	4.5	52
15	<i>HERSCHEL</i> OBSERVATIONS OF INTERSTELLAR CHLORONIUM. <i>Astrophysical Journal</i> , 2012, 748, 37.	4.5	51
16	Interstellar absorption lines toward NGC 2264 and AFGL 2591 - Abundances of H <sub>2</sub> , H <sub>3</sub> <sup>+</sup> , and CO. <i>Astrophysical Journal</i> , 1990, 358, 459.	4.5	49
17	Electron densities and the excitation of CN in molecular clouds. <i>Astrophysical Journal</i> , 1991, 369, L9.	4.5	49
18	Molecular hydrogen formation by excited atom radiative association. <i>Astrophysical Journal</i> , 1991, 372, 161.	4.5	44

#	ARTICLE	IF	CITATIONS
19	Unresolved velocity structure in diffuse interstellar clouds. <i>Astrophysical Journal</i> , 1988, 331, 986.	4.5	42
20	CO J = 3-2 observations of translucent and high-latitude molecular clouds. <i>Astrophysical Journal</i> , 1991, 366, 141.	4.5	41
21	Production of Gamma Radiation in Dense Interstellar Clouds by Cosmic-Ray Interactions. <i>Astrophysical Journal</i> , 1973, 185, L7.	4.5	40
22	OH <sup>+</sup> and H <sub>2</sub> O <sup>+</sup> absorption toward PKS 1830-211. <i>Astronomy and Astrophysics</i> , 2016, 595, A128.	5.1	36
23	Properties of evolved mass-losing stars in the Milky Way and variations in the interstellar dust composition. <i>Astrophysical Journal</i> , 1987, 322, 770.	4.5	36
24	The Translucent Molecular Clouds toward HD 154368. I. Extinction, Abundances, and Depletions. <i>Astrophysical Journal</i> , 1996, 465, 245.	4.5	34
25	FAINT EXTENDED OH EMISSION FROM THE LOCAL INTERSTELLAR MEDIUM IN THE DIRECTION l = 108° , b = 5°. <i>Astronomical Journal</i> , 2012, 143, 97.	4.7	33
26	Spatially resolved images of reactive ions in the Orion Bar. <i>Astronomy and Astrophysics</i> , 2017, 601, L9.	5.1	33
27	TRACING THE SOURCES OF COSMIC RAYS WITH MOLECULAR IONS. <i>Astrophysical Journal Letters</i> , 2011, 739, L43.	8.3	32
28	HERSCHEL SEARCH FOR O <sub>2</sub> TOWARD THE ORION BAR. <i>Astrophysical Journal</i> , 2012, 752, 26.	4.5	32
29	Molecules at early epochs. II - H <sub>2</sub> and CO toward PHL 957. <i>Astrophysical Journal</i> , 1987, 317, 442.	4.5	29
30	The Abundance of Interstellar CO. , 1987, , 241-274.		27
31	PDRs4All: A JWST Early Release Science Program on Radiative Feedback from Massive Stars. <i>Publications of the Astronomical Society of the Pacific</i> , 2022, 134, 054301.	3.1	26
32	CO rotational line emission from a dense knot in Cassiopeia A. <i>Astronomy and Astrophysics</i> , 2013, 558, L2.	5.1	23
33	Diffuse Cloud Chemistry. <i>Astrophysics and Space Science Library</i> , 1988, , 209-237.	2.7	23
34	HERSCHEL OBSERVATIONS OF INTERSTELLAR CHLORONIUM. II. DETECTIONS TOWARD G29.96-0.02, W49N, W51, AND W3(OH), AND DETERMINATIONS OF THE ORTHO-TO-PARA AND <sup>35</sup> Cl/ <sup>37</sup> Cl ISOTOPIC RATIOS. <i>Astrophysical Journal</i> , 2015, 807, 54.	4.5	20
35	The diffuse interstellar cloud toward HD 179406 (20 Aquilae). <i>Astrophysical Journal</i> , 1992, 392, 571.	4.5	20
36	Detection of interstellar C <sub>2</sub> and C <sub>3</sub> in the Small Magellanic Cloud... <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 428, 1107-1115.	4.4	18

#	ARTICLE	IF	CITATIONS
37	OH mid-infrared emission as a diagnostic of H <sub>2</sub> O UV photodissociation. <i>Astronomy and Astrophysics</i> , 2021, 650, A192.	5.1	18
38	The small molecular cloud toward HD 169454. <i>Astrophysical Journal</i> , 1988, 332, 995.	4.5	17
39	Carbon and Oxygen Depletion and Extinction in the Translucent Cloud toward HD 24534 (X Persei). <i>Astrophysical Journal</i> , 1998, 496, L113-L116.	4.5	16
40	The abundance and excitation of interstellar H <sub>3</sub> <sup>+</sup> . <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2000, 358, 2515-2521.	3.4	16
41	AN ULTRAVIOLET SEARCH FOR INTERSTELLAR CS. <i>Astrophysical Journal</i> , 2009, 693, 804-811.	4.5	14
42	Alternative data reduction procedures for UVES: Wavelength calibration and spectrum addition. <i>New Astronomy</i> , 2009, 14, 379-390.	1.8	14
43	A Study of Quasar Absorption-Line Systems With IRAS. <i>Astronomical Journal</i> , 1996, 112, 62.	4.7	12
44	Near-infrared observations of the proto-planetary nebula AFGL 618. <i>Astrophysical Journal</i> , 1992, 389, 347.	4.5	12
45	Theoretical study of ALH <sup>+</sup> : Spin splitting, core polarization, and interstellar chemistry. <i>Journal of Chemical Physics</i> , 1983, 78, 1371-1376.	3.0	11
46	The Abundances and Excitation of Interstellar Molecules. <i>Advances in Atomic and Molecular Physics</i> , 1989, 25, 477-512.	2.0	11
47	H <sub>3</sub> <sup>+</sup> at the interface between astrochemistry and astroparticle physics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012, 370, 5130-5141.	3.4	10
48	Chemistry and cosmology. <i>Faraday Discussions</i> , 2006, 133, 27.	3.2	9
49	Detection of highly excited OH towards AGB stars. <i>Astronomy and Astrophysics</i> , 2019, 623, L1.	5.1	9
50	Detection of deuterated molecules, but not of lithium hydride, in the $\langle i \rangle z \langle /i \rangle = 0.89$ absorber toward PKS 1830 $\hat{\sim}$ 211. <i>Astronomy and Astrophysics</i> , 2020, 637, A7.	5.1	9
51	Molecules at early epochs. III - The Lyman-alpha disk system toward 1331+170. <i>Astrophysical Journal</i> , 1988, 335, 584.	4.5	9
52	Molecules in Planetary Nebulae. , 1983, , 91-102.		7
53	Molecules at high redshift. V - Improved limits on the column density of CO in two damped Lyman alpha absorption systems. <i>Astronomical Journal</i> , 1989, 98, 2052.	4.7	6
54	Spectroscopy of PKS 0528 $\hat{\sim}$ 250: New Limits on CO Absorption and Emission. <i>Astrophysical Journal</i> , 1997, 486, 727-737.	4.5	5

#	ARTICLE	IF	CITATIONS
55	The photodissociation of interstellar CO. Lecture Notes in Physics, 1988, , 168-169.	0.7	5
56	Visible and Ultraviolet Studies of Interstellar Molecules. , 1985, , 215-236.		4
57	The Photodissociation and Chemistry of Interstellar CO: Erratum. Astrophysical Journal, 1990, 360, 313.	4.5	4
58	Discovery of methanimine (CH <sub>2</sub> NH) megamasers toward compact obscured galaxy nuclei. Astronomy and Astrophysics, 2021, 654, A110.	5.1	3
59	Chemistry and Small-Scale Structure of Diffuse and Translucent Clouds. , 1991, , 139-150.		3
60	Observations of Interstellar Molecules with the International Ultraviolet Explorer. , 1980, , 257-260.		2
61	Molecules at early epochs. , 1990, , 473-480.		2
62	Ultraviolet absorption studies of H <sub>2</sub> O and other species in comet comae with satellite telescope-spectrometers. Icarus, 1981, 47, 441-448.	2.5	1
63	Ultraviolet, Visible, and Infrared Spectroscopy of Interstellar Molecules. Highlights of Astronomy, 1989, 8, 331-338.	0.0	1
64	The High-Resolution Frontier in Infrared Spectroscopy. , 0, , 3-14.		1
65	Mass loss from evolved stars - Response to a review by Zuckerman (1987). Publications of the Astronomical Society of the Pacific, 1988, 100, 1446.	3.1	1
66	Chemistry and small-scale structure of diffuse and translucent clouds. Symposium - International Astronomical Union, 1991, 147, 139-150.	0.1	0
67	Chemistry and small-scale structure of diffuse and translucent clouds. Symposium - International Astronomical Union, 1991, 147, 139-150.	0.1	0
68	Molecular Excitation and Radiative Transfer: Current Results and Future Prospects. Symposium - International Astronomical Union, 2000, 197, 81-94.	0.1	0
69	ASTROCHEMISTRY: AN UNFINISHED SYMPHONY. , 2009, , .		0
70	Chlorine Chemistry in Diffuse Interstellar Clouds. , 1980, , 271-272.		0
71	Rotational Fine Structure Lines of Interstellar C <sub>2</sub> Toward $\hat{\eta}$ Persei. , 1980, , 263-267.		0
72	Ultraviolet, Visible, and Infrared Spectroscopy of Interstellar Molecules. , 1989, , 331-338.		0

#	ARTICLE	IF	CITATIONS
73	CO at other Wavelengths. , 1997, , 87-94.		0