

Valentine Wakelam

List of Publications by Year in descending order

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143
papers

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41344

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145
docs citations

145
times ranked

3433
citing authors

#	ARTICLE	IF	CITATIONS
1	A KINETIC DATABASE FOR ASTROCHEMISTRY (KIDA). <i>Astrophysical Journal, Supplement Series</i> , 2012, 199, 21.	7.7	436
2	The Hot Core around the Low-Mass Protostar IRAS 16293-2422: Scoundrels Rule!. <i>Astrophysical Journal</i> , 2003, 593, L51-L55.	4.5	423
3	Non-thermal desorption from interstellar dust grains via exothermic surface reactions. <i>Astronomy and Astrophysics</i> , 2007, 467, 1103-1115.	5.1	378
4	THE 2014 KIDA NETWORK FOR INTERSTELLAR CHEMISTRY. <i>Astrophysical Journal, Supplement Series</i> , 2015, 217, 20.	7.7	291
5	Polycyclic Aromatic Hydrocarbons in Dense Cloud Chemistry. <i>Astrophysical Journal</i> , 2008, 680, 371-383.	4.5	234
6	Reaction Networks for Interstellar Chemical Modelling: Improvements and Challenges. <i>Space Science Reviews</i> , 2010, 156, 13-72.	8.1	225
7	Gas and grain chemical composition in cold cores as predicted by the Nautilus three-phase model. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 3756-3767.	4.4	207
8	Chemistry of Dark Clouds: Databases, Networks, and Models. <i>Chemical Reviews</i> , 2013, 113, 8710-8737.	47.7	202
9	Molecular Evolution and Star Formation: From Prestellar Cores to Protostellar Cores. <i>Astrophysical Journal</i> , 2008, 674, 984-996.	4.5	195
10	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2010, 522, A42.	5.1	171
11	Virtual atomic and molecular data centre. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010, 111, 2151-2159.	2.3	164
12	H ₂ formation on interstellar dust grains: The viewpoints of theory, experiments, models and observations. <i>Molecular Astrophysics</i> , 2017, 9, 1-36.	1.6	164
13	A NEW NETWORK FOR HIGHER-TEMPERATURE GAS-PHASE CHEMISTRY. I. A PRELIMINARY STUDY OF ACCRETION DISKS IN ACTIVE GALACTIC NUCLEI. <i>Astrophysical Journal</i> , 2010, 721, 1570-1578.	4.5	149
14	Binding energies: New values and impact on the efficiency of chemical desorption. <i>Molecular Astrophysics</i> , 2017, 6, 22-35.	1.6	145
15	Resetting chemical clocks of hot cores based on S-bearing molecules. <i>Astronomy and Astrophysics</i> , 2004, 422, 159-169.	5.1	141
16	TIMASSS: the IRAS 16293-2422 millimeter and submillimeter spectral survey. <i>Astronomy and Astrophysics</i> , 2011, 532, A23.	5.1	133
17	FROM PRESTELLAR TO PROTOSTELLAR CORES. II. TIME DEPENDENCE AND DEUTERIUM FRACTIONATION. <i>Astrophysical Journal</i> , 2012, 760, 40.	4.5	129
18	On the reservoir of sulphur in dark clouds: chemistry and elemental abundance reconciled. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, 435-447.	4.4	129

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19	Oxygen depletion in dense molecular clouds: a clue to a low O ₂ abundance?. <i>Astronomy and Astrophysics</i> , 2011, 530, A61.	5.1	121
20	The virtual atomic and molecular data centre (VAMDC) consortium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 074003.	1.5	120
21	Modelling complex organic molecules in dense regions: Eleyâ€Rideal and complex induced reaction. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 447, 4004-4017.	4.4	118
22	The effect of uncertainties on chemical models of dark clouds. <i>Astronomy and Astrophysics</i> , 2006, 451, 551-562.	5.1	115
23	<i>Herschel</i> spectral surveys of star-forming regions. <i>Astronomy and Astrophysics</i> , 2010, 521, L22.	5.1	99
24	The CHESS spectral survey of star forming regions: Peering into the protostellar shock L1157-B1. <i>Astronomy and Astrophysics</i> , 2010, 518, L112.	5.1	97
25	The interstellar gas-phase chemistry of HCN and HNC. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 443, 398-410.	4.4	90
26	A NEW REFERENCE CHEMICAL COMPOSITION FOR TMC-1. <i>Astrophysical Journal, Supplement Series</i> , 2016, 225, 25.	7.7	86
27	<i>Herschel</i> /HIFI discovery of interstellar chloronium (H ₂ Cl ⁺). <i>Astronomy and Astrophysics</i> , 2010, 521, L9.	5.1	83
28	Sulphur chemistry in the L1544 pre-stellar core. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 478, 5514-5532.	4.4	81
29	WATER IN PROTOPLANETARY DISKS: DEUTERATION AND TURBULENT MIXING. <i>Astrophysical Journal</i> , 2013, 779, 11.	4.5	80
30	Detection of interstellar oxidaniumyl: Abundant H ₂ O ⁺ towards the star-forming regions DR21, SgrÂ2, and NGC6334. <i>Astronomy and Astrophysics</i> , 2010, 518, L111.	5.1	78
31	Cold CO in circumstellar disks. <i>Astronomy and Astrophysics</i> , 2009, 493, L49-L52.	5.1	77
32	Chemistry in Protoplanetary Disks: A Sensitivity Analysis. <i>Astrophysical Journal</i> , 2008, 672, 629-641.	4.5	75
33	Sulphur-bearing species in the star forming region L1689N. <i>Astronomy and Astrophysics</i> , 2004, 413, 609-622.	5.1	74
34	Elemental nitrogen partitioning in dense interstellar clouds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 10233-10238.	7.1	73
35	CHEMISTRY IN DISKS. III. PHOTOCHEMISTRY AND X-RAY DRIVEN CHEMISTRY PROBED BY THE ETHYNYL RADICAL (CCH) IN DM Tau, LkCa 15, AND MWC 480. <i>Astrophysical Journal</i> , 2010, 714, 1511-1520.	4.5	72
36	HDO abundance in the envelope of the solar-type protostar IRASÂ16293â€2422. <i>Astronomy and Astrophysics</i> , 2005, 431, 547-554.	5.1	66

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37	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2012, 548, A70.	5.1	64
38	The interstellar chemistry of H ₂ C ₃ O isomers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 456, 4101-4110.	4.4	63
39	The CHESS spectral survey of star forming regions: Peering into the protostellar shock L1157-B1. <i>Astronomy and Astrophysics</i> , 2010, 518, L113.	5.1	61
40	CHEMISTRY IN DISKS. VII. FIRST DETECTION OF HC ₃ N IN PROTOPLANETARY DISKS. <i>Astrophysical Journal</i> , 2012, 756, 58.	4.5	61
41	Chemistry in protoplanetary disks: the gas-phase CO/H ₂ ratio and the carbon reservoir. <i>Astronomy and Astrophysics</i> , 2015, 579, A82.	5.1	61
42	THE DEUTERIUM FRACTIONATION TIMESCALE IN DENSE CLOUD CORES: A PARAMETER SPACE EXPLORATION. <i>Astrophysical Journal</i> , 2015, 804, 98.	4.5	60
43	Estimation and reduction of the uncertainties in chemical models: application to hot core chemistry. <i>Astronomy and Astrophysics</i> , 2005, 444, 883-891.	5.1	59
44	The interstellar chemistry of C ₃ H and C ₃ H ₂ isomers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 4075-4088.	4.4	58
45	The gas-phase chemistry of carbon chains in dark cloud chemical models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 437, 930-945.	4.4	57
46	Composition of Ices in Low-Mass Extrasolar Planets. <i>Astrophysical Journal</i> , 2008, 681, 1624-1630.	4.5	56
47	Nitrogen hydrides in the cold envelope of IRAS 16293-2422. <i>Astronomy and Astrophysics</i> , 2010, 521, L52.	5.1	56
48	First Detection of Interstellar S ₂ H. <i>Astrophysical Journal Letters</i> , 2017, 851, L49.	8.3	55
49	Thermal Desorption of Interstellar Ices: A Review on the Controlling Parameters and Their Implications from Snowlines to Chemical Complexity. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 597-630.	2.7	55
50	Grain-surface reactions in molecular clouds: the effect of cosmic rays and quantum tunnelling. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 3557-3567.	4.4	54
51	A Decade with VAMDC: Results and Ambitions. <i>Atoms</i> , 2020, 8, 76.	1.6	53
52	Sensitivity analyses of dense cloud chemical models. <i>Astronomy and Astrophysics</i> , 2010, 517, A21.	5.1	50
53	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2011, 535, A104.	5.1	49
54	SURVEY OBSERVATIONS OF A POSSIBLE GLYCINE PRECURSOR, METHANIMINE (CH ₂ NH). <i>Astrophysical Journal</i> , 2016, 825, 79.	4.5	49

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55	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2016, 592, A124.	5.1	48
56	The fast $C^{+3} + CH_3OH$ reaction as an efficient loss process for gas-phase interstellar methanol. <i>RSC Advances</i> , 2014, 4, 26342-26353.	3.6	47
57	Detection of CH_3SH in protostar IRAS 16293-2422. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 458, 1859-1865.	4.4	47
58	The Flying Saucer: Tomography of the thermal and density gas structure of an edge-on protoplanetary disk. <i>Astronomy and Astrophysics</i> , 2017, 607, A130.	5.1	47
59	Sulfur chemistry: 1D modeling in massive dense cores. <i>Astronomy and Astrophysics</i> , 2011, 529, A112.	5.1	46
60	NEW CONSTRAINTS ON THE SULFUR RESERVOIR IN THE DENSE INTERSTELLAR MEDIUM PROVIDED BY SPITZER OBSERVATIONS OF SI IN SHOCKED GAS. <i>Astrophysical Journal</i> , 2013, 779, 141.	4.5	46
61	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2015, 574, A137.	5.1	46
62	Gas phase Elemental abundances in Molecular clouds (GEMS). <i>Astronomy and Astrophysics</i> , 2020, 637, A39.	5.1	44
63	Sulphur chemistry and molecular shocks: The case of NGC 1333-IRAS 2. <i>Astronomy and Astrophysics</i> , 2005, 437, 149-158.	5.1	43
64	S-bearing molecules in massive dense cores. <i>Astronomy and Astrophysics</i> , 2009, 504, 853-867.	5.1	43
65	Chemical differentiation along the CepA-East outflows. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 361, 244-258.	4.4	42
66	First detection of H_2S in a protoplanetary disk. <i>Astronomy and Astrophysics</i> , 2018, 616, L5.	5.1	42
67	First detection of ND in the solar-mass protostar IRAS16293-2422. <i>Astronomy and Astrophysics</i> , 2010, 521, L42.	5.1	41
68	A new look at sulphur chemistry in hot cores and corinos. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 5575-5587.	4.4	41
69	Ortho-to-para ratio of interstellar heavy water. <i>Astronomy and Astrophysics</i> , 2010, 521, L31.	5.1	40
70	SURVIVAL OF INTERSTELLAR MOLECULES TO PRESTELLAR DENSE CORE COLLAPSE AND EARLY PHASES OF DISK FORMATION. <i>Astrophysical Journal</i> , 2013, 775, 44.	4.5	40
71	CHEMISTRY IN THE FIRST HYDROSTATIC CORE STAGE BY ADOPTING THREE-DIMENSIONAL RADIATION HYDRODYNAMIC SIMULATIONS. <i>Astrophysical Journal</i> , 2012, 758, 86.	4.5	37
72	THE $C^{+3} + NH_3$ REACTION IN INTERSTELLAR CHEMISTRY. II. LOW TEMPERATURE RATE CONSTANTS AND MODELING OF NH , NH_2 , AND NH_3 ABUNDANCES IN DENSE INTERSTELLAR CLOUDS. <i>Astrophysical Journal</i> , 2015, 812, 107.	4.5	37

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73	THE C(³ P) + NH ₃ REACTION IN INTERSTELLAR CHEMISTRY. I. INVESTIGATION OF THE PRODUCT FORMATION CHANNELS. <i>Astrophysical Journal</i> , 2015, 812, 106.	4.5	37
74	Methylacetylene (CH ₃ CCH) and propene (C ₃ H ₆) formation in cold dense clouds: A case of dust grain chemistry. <i>Molecular Astrophysics</i> , 2016, 3-4, 1-9.	1.6	37
75	The ALMA-PILS survey: First detection of nitrous acid (HONO) in the interstellar medium. <i>Astronomy and Astrophysics</i> , 2019, 623, L13.	5.1	37
76	Review of OCS gas-phase reactions in dark cloud chemical models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 421, 1476-1484.	4.4	34
77	Low temperature rate constants for the N(4S) + CH(X ² ̇r) reaction. Implications for N ₂ formation cycles in dense interstellar clouds. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13888.	2.8	34
78	A sensitivity study of the neutral-neutral reactions C ⁺ +C ₃ and C ⁺ +C ₅ in cold dense interstellar clouds. <i>Astronomy and Astrophysics</i> , 2009, 495, 513-521.	5.1	33
79	Polysulphanes on interstellar grains as a possible reservoir of interstellar sulphur. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 426, 354-359.	4.4	33
80	Depletion of chlorine into HCl ice in a protostellar core. <i>Astronomy and Astrophysics</i> , 2015, 574, A107.	5.1	32
81	Chemical modelling of water deuteration in IRAS16293-2422. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 445, 2854-2871.	4.4	31
82	Abundances of sulphur molecules in the Horsehead nebula. <i>Astronomy and Astrophysics</i> , 2019, 628, A16.	5.1	31
83	The distribution of water in the high-mass star-forming region NGC6334. <i>Astronomy and Astrophysics</i> , 2010, 521, L28.	5.1	30
84	LEGO II. A 3mm molecular line study covering 100pc of one of the most actively star-forming portions within the Milky Way disc. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 1972-2001.	4.4	30
85	REACTIONS FORMING C _n ^{0,+} , C _n H ^{0,+} , AND C ₃ H ₂ ^{0,+} IN THE GAS PHASE: SEMIEMPIRICAL BRANCHING RATIOS. <i>Astrophysical Journal</i> , 2013, 771, 90.	4.5	29
86	Isocyanogen formation in the cold interstellar medium. <i>Astronomy and Astrophysics</i> , 2019, 625, A91.	5.1	29
87	Chemical nitrogen fractionation in dense molecular clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 484, 2747-2756.	4.4	29
88	Heavy water stratification in a low-mass protostar. <i>Astronomy and Astrophysics</i> , 2013, 553, A75.	5.1	29
89	The ALMA-PILS survey: first detection of the unsaturated 3-carbon molecules Propenal (C ₂ H ₃ CHO) and Propylene (C ₃ H ₆) towards IRAS 16293-2422 B. <i>Astronomy and Astrophysics</i> , 2021, 645, A53.	5.1	28
90	Oxygen fractionation in dense molecular clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 5777-5789.	4.4	27

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91	Efficiency of non-thermal desorptions in cold-core conditions. <i>Astronomy and Astrophysics</i> , 2021, 652, A63.	5.1	26
92	Modeling the ortho-to-para abundance ratio of cyclic C ₃ H ₂ in cold dense cores. <i>Astronomy and Astrophysics</i> , 2006, 449, 631-639.	5.1	26
93	Chemical sensitivity to the ratio of the cosmic-ray ionization rates of He and H ₂ in dense clouds. <i>Astronomy and Astrophysics</i> , 2006, 459, 813-820.	5.1	25
94	CHEMICAL AND PHYSICAL CHARACTERIZATION OF COLLAPSING LOW-MASS PRESTELLAR DENSE CORES. <i>Astrophysical Journal</i> , 2016, 822, 12.	4.5	25
95	CH in absorption in IRAS 16293-2422. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 441, 1964-1973.	4.4	24
96	A new study of the chemical structure of the Horsehead nebula: the influence of grain-surface chemistry. <i>Astronomy and Astrophysics</i> , 2017, 605, A88.	5.1	24
97	Gas phase Elemental abundances in Molecular clouds (GEMS). <i>Astronomy and Astrophysics</i> , 2021, 648, A120.	5.1	24
98	Methyl isocyanate (CH ₃ NCO): an important missing organic in current astrochemical networks. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2018, 473, L59-L63.	3.3	23
99	The Difference in Abundance between N-bearing and O-bearing Species in High-mass Star-forming Regions. <i>Astrophysical Journal, Supplement Series</i> , 2018, 237, 3.	7.7	23
100	Gas-grain model of carbon fractionation in dense molecular clouds. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 498, 4663-4679.	4.4	23
101	Nautilus multi-grain model: Importance of cosmic-ray-induced desorption in determining the chemical abundances in the ISM. <i>Astronomy and Astrophysics</i> , 2018, 615, A20.	5.1	21
102	An Expanded Gas-grain Model for Interstellar Glycine. <i>Astrophysical Journal</i> , 2018, 863, 51.	4.5	21
103	C ¹⁸ O observations in the CQ ¹⁵ Tauri proto-planetary disk: evidence of a very low gas-to-dust ratio ?. <i>Astronomy and Astrophysics</i> , 2010, 520, A61.	5.1	20
104	Methyl cyanide (CH ₃ CN) and propyne (CH ₃ CCH) in the low-mass protostar IRAS 16293-2422. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 481, 5651-5659.	4.4	20
105	Temperature dependent product yields for the spin forbidden singlet channel of the C(3P) + C ₂ H ₂ reaction. <i>Chemical Physics Letters</i> , 2016, 659, 70-75.	2.6	19
106	Statistical universal branching ratios for cosmic ray dissociation, photodissociation, and dissociative recombination of the C, CH and C ₃ H ₂ neutral and cationic species. <i>Astronomy and Astrophysics</i> , 2010, 524, A39.	5.1	17
107	A proposed chemical scheme for HCCO formation in cold dense clouds. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2015, 453, L48-L52.	3.3	17
108	Importance of the H ₂ abundance in protoplanetary disk ices for the molecular layer chemical composition. <i>Astronomy and Astrophysics</i> , 2016, 594, A35.	5.1	17

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109	Gas phase Elemental abundances in Molecular cloudS (GEMS). <i>Astronomy and Astrophysics</i> , 2021, 646, A5.	5.1	17
110	The methanol lines and hot core of OMC2-FIR4, an intermediate-mass protostar, with <i>Herschel</i> /HIFI. <i>Astronomy and Astrophysics</i> , 2010, 521, L39.	5.1	16
111	A study of singly deuterated cyclopropenylidene c-C ₃ H ₂ D in the protostar IRAS 16293-2422. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 467, 3525-3532.	4.4	16
112	Sensitive survey for ¹³ CO, CN, H ₂ CO, and SO in the disks of T Tauri and Herbig Ae stars. <i>Astronomy and Astrophysics</i> , 2015, 578, A31.	5.1	16
113	MOLECULAR CLOUD CHEMISTRY AND THE IMPORTANCE OF DIELECTRONIC RECOMBINATION. <i>Astrophysical Journal</i> , 2009, 694, 286-293.	4.5	15
114	Sulphur and carbon isotopes towards Galactic centre clouds. <i>Astronomy and Astrophysics</i> , 2020, 642, A222.	5.1	15
115	<i>Herschel</i> /HIFI observations of spectrally resolved methylidyne signatures toward the high-mass star-forming core NGC 6334I. <i>Astronomy and Astrophysics</i> , 2010, 521, L43.	5.1	14
116	Protoplanetary discs: sensitivity of the chemical composition to various model parameters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 484, 1563-1573.	4.4	13
117	Evolutionary view through the starless cores in Taurus. <i>Astronomy and Astrophysics</i> , 2021, 653, A15.	5.1	13
118	Impact of size-dependent grain temperature on gas-grain chemistry in protoplanetary disks: The case of low-mass star disks. <i>Astronomy and Astrophysics</i> , 2021, 654, A65.	5.1	12
119	Gas phase Elemental abundances in Molecular cloudS (GEMS) V. Methanol in Taurus. <i>Astronomy and Astrophysics</i> , 2022, 657, A10.	5.1	11
120	The ALMA-PILS survey: First tentative detection of 3-hydroxypropenal (HOCHCHCHO) in the interstellar medium and chemical modeling of the C ₃ H ₄ O ₂ isomers. <i>Astronomy and Astrophysics</i> , 2022, 660, L6.	5.1	11
121	Statistical study of uncertainties in the diffusion rate of species on interstellar ice and its impact on chemical model predictions. <i>Astronomy and Astrophysics</i> , 2018, 620, A109.	5.1	10
122	Chemical evolution during the formation of a protoplanetary disk. <i>Astronomy and Astrophysics</i> , 2020, 643, A108.	5.1	10
123	SiS Formation in the Interstellar Medium through Si+SH Gas-phase Reactions. <i>Astrophysical Journal</i> , 2021, 920, 37.	4.5	10
124	Detection of HOCO ⁺ in the protostar IRAS 16293-2422. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 477, 525-530.	4.4	9
125	Gas phase Elemental abundances in Molecular cloudS (GEMS). <i>Astronomy and Astrophysics</i> , 2022, 662, A52.	5.1	9
126	Influence of galactic arm scale dynamics on the molecular composition of the cold and dense ISM. <i>Astronomy and Astrophysics</i> , 2018, 611, A96.	5.1	8

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127	Influence of galactic arm scale dynamics on the molecular composition of the cold and dense ISM II. Molecular oxygen abundance. Monthly Notices of the Royal Astronomical Society, 2019, 486, 4198-4202.	4.4	8
128	Hydrodynamical-Chemical Models from Prestellar Cores to Protostellar Cores. Proceedings of the International Astronomical Union, 2011, 7, 33-42.	0.0	7
129	Astrochemistry: Synthesis and Modelling. , 2013, , 115-143.		7
130	Kinetic Study of the Gas-Phase $C^{+3} + CH_3CN$ Reaction at Low Temperatures: Rate Constants, H-Atom Product Yields, and Astrochemical Implications. ACS Earth and Space Chemistry, 2021, 5, 824-833.	2.7	7
131	3D modelling of HCO ⁺ and its isotopologues in the low-mass proto-star IRAS16293 [~] 2422. Monthly Notices of the Royal Astronomical Society, 2018, 477, 5312-5326.	4.4	6
132	Influence of galactic arm scale dynamics on the molecular composition of the cold and dense ISM III. Elemental depletion and shortcomings of the current physico-chemical models. Monthly Notices of the Royal Astronomical Society, 2020, 497, 2309-2319.	4.4	5
133	Chemical compositions of five Planck cold clumps. Astronomy and Astrophysics, 2021, 647, A172.	5.1	5
134	Semiempirical breakdown curves of C ₂ N(+) and C ₃ N(+) molecules; application to products branching ratios predictions of physical and chemical processes involving these adducts. Molecular Astrophysics, 2018, 12, 25-32.	1.6	4
135	An Experimental and Theoretical Investigation of the Gas-Phase $C^{+3} + N_2O$ Reaction. Low Temperature Rate Constants and Astrochemical Implications. Journal of Physical Chemistry A, 2022, 126, 940-950.	2.5	4
136	Kinetic database for astrochemistry. EAS Publications Series, 2012, 58, 287-290.	0.3	3
137	Constraints of the Formation and Abundances of Methyl Carbamate, a Glycine Isomer, in Hot Corinos. Astrophysical Journal, 2020, 899, 65.	4.5	3
138	The Si ⁺ SO ₂ collision and an extended network of neutral-neutral reactions between silicon and sulphur bearing species. Monthly Notices of the Royal Astronomical Society, 2022, 515, 369-377.	4.4	2
139	Molecular evolution in star-forming cores: From prestellar cores to protostellar cores. Proceedings of the International Astronomical Union, 2008, 4, 129-136.	0.0	1
140	New constraints on the initial parameters of low-mass star formation from chemical modeling. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	1
141	Breakdown curves of CH ₂ (+), CH ₃ (+), and CH ₄ (+) molecules. Astronomy and Astrophysics, 2020, 640, A115.	5.1	1
142	Carbon Interstellar Chemistry: Theory versus Observations. Proceedings of the International Astronomical Union, 2013, 9, 303-310.	0.0	0
143	Breakdown curves of carbon-based molecules for astrochemistry. Journal of Physics: Conference Series, 2015, 635, 032107.	0.4	0