# Tom J Millar

List of Publications by Year
in descending order

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|---|---|---|---|
| 244<br>papers | 11,750<br>citations | 28274<br>55<br>h-index | 31849<br>101<br>g-index |
| 252<br>all docs | 252<br>docs citations | 252<br>times ranked | 5485<br>citing authors |

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|---|---|---|---|
| 1 | The UMIST database for astrochemistry 2012. Astronomy and Astrophysics, 2013, 550, A36. | 5.1 | 714 |
| 2 | TFOS DEWS II Tear Film Report. Ocular Surface, 2017, 15, 366-403. | 4.4 | 610 |
| 3 | The UMIST database for astrochemistry 2006. Astronomy and Astrophysics, 2007, 466, 1197-1204. | 5.1 | 524 |
| 4 | Deuterium fractionation in dense interstellar clouds. Astrophysical Journal, 1989, 340, 906. | 4.5 | 360 |
| 5 | On the molecular complexity of the hot cores in Orion A - Grain surface chemistry as 'The last refuge of the scoundrel'. Astrophysical Journal, 1992, 399, L71. | 4.5 | 358 |
| 6 | The UMIST Database for Astrochemistry 1995. Astronomy and Astrophysics, 1997, 121, 139-185. | 2.1 | 355 |
| 7 | The UMIST database for astrochemistry 1999. Astronomy and Astrophysics, 2000, 146, 157-168. | 2.1 | 273 |
| 8 | A Threeâ€Position Spectral Line Survey of Sagittarius B2 between 218 and 263 GHz. II. Data Analysis. Astrophysical Journal, Supplement Series, 2000, 128, 213-243. | 7.7 | 238 |
| 9 | Enhanced Deuterium Fractionation in Dense Interstellar Cores Resulting from Multiply Deuterated H[FORMULA][F][SUP]+[/SUP][INF]3[/INF][/F][/FORMULA]. Astrophysical Journal, 2003, 591, L41-L44. | 4.5 | 226 |
| 10 | The Global Trachoma Mapping Project: Methodology of a 34-Country Population-Based Study. Ophthalmic Epidemiology, 2015, 22, 214-225. | 1.7 | 196 |
| 11 | A model of the chemistry in hot molecular cores. Monthly Notices of the Royal Astronomical Society, 1988, 231, 409-417. | 4.4 | 187 |
| 12 | Dissociative recombination of protonated methanol. Faraday Discussions, 2006, 133, 177-190. | 3.2 | 177 |
| 13 | Negative Ions in Space. Chemical Reviews, 2017, 117, 1765-1795. | 47.7 | 176 |
| 14 | Interstellar Alcohols. Astrophysical Journal, 1995, 448, 232. | 4.5 | 175 |
| 15 | Complex organic molecules in protoplanetary disks. Astronomy and Astrophysics, 2014, 563, A33. | 5.1 | 169 |
| 16 | CHEMICAL PROCESSES IN PROTOPLANETARY DISKS. Astrophysical Journal, 2010, 722, 1607-1623. | 4.5 | 168 |
| 17 | FIRST DETECTION OF GAS-PHASE METHANOL IN A PROTOPLANETARY DISK. Astrophysical Journal Letters, 2016, 823, L10. | 8.3 | 166 |
| 18 | Virtual atomic and molecular data centre. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 2151-2159. | 2.3 | 164 |

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| 19 | Detection of C <sub>8</sub> H <sup>-</sup> and Comparison with C <sub>8</sub> H toward IRC +10 216. Astrophysical Journal, 2007, 664, L47-L50. | 4.5 | 146 |
| 20 | Large molecules in the envelope surrounding IRC+10216. Monthly Notices of the Royal Astronomical Society, 2000, 316, 195-203. | 4.4 | 143 |
| 21 | Molecular Hydrogen Emission from Protoplanetary Disks. II. Effects of Xâ€Ray Irradiation and Dust Evolution. Astrophysical Journal, 2007, 661, 334-353. | 4.5 | 133 |
| 22 | The formation of oxygen-containing organic molecules in the Orion compact ridge. Astrophysical Journal, 1991, 369, 147. | 4.5 | 129 |
| 23 | The chemistry of multiply deuterated species in cold, dense interstellar cores. Astronomy and Astrophysics, 2004, 424, 905-917. | 5.1 | 127 |
| 24 | A Threeâ€Position Spectral Line Survey of Sagittarius B2 between 218 and 263 GHz. I. The Observational Data. Astrophysical Journal, Supplement Series, 1998, 117, 427-529. | 7.7 | 126 |
| 25 | Molecular hydrogen emission from protoplanetary disks. Astronomy and Astrophysics, 2005, 438, 923-938. | 5.1 | 125 |
| 26 | CHEMICAL PROCESSES IN PROTOPLANETARY DISKS. II. ON THE IMPORTANCE OF PHOTOCHEMISTRY AND X-RAY IONIZATION. Astrophysical Journal, 2012, 747, 114. | 4.5 | 123 |
| 27 | The physical and chemical structure of hot molecular cores. Astronomy and Astrophysics, 2004, 414, 409-423. | 5.1 | 122 |
| 28 | The virtual atomic and molecular data centre (VAMDC) consortium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 074003. | 1.5 | 120 |
| 29 | A survey of molecular line emission towards ultracompact Hii regions. Astronomy and Astrophysics, 1998, 133, 29-49. | 2.1 | 120 |
| 30 | Models of the gas-grain interaction - deuterium chemistry. Monthly Notices of the Royal Astronomical Society, 1989, 237, 661-671. | 4.4 | 115 |
| 31 | ALMA HINTS AT THE PRESENCE OF TWO COMPANIONS IN THE DISK AROUND HD 100546. Astrophysical Journal Letters, 2014, 791, L6. | 8.3 | 114 |
| 32 | ALMA OBSERVATIONS OF A GAP AND A RING IN THE PROTOPLANETARY DISK AROUND TW HYA. Astrophysical Journal Letters, 2016, 819, L7. | 8.3 | 105 |
| 33 | Molecular distributions in the inner regions of protostellar disks. Astronomy and Astrophysics, 2002, 385, 632-646. | 5.1 | 103 |
| 34 | The effect of rapid neutral-neutral reactions on chemical models of dense interstellar clouds. Monthly Notices of the Royal Astronomical Society, 1994, 268, 335-344. | 4.4 | 98 |
| 35 | Hydrocarbon Anions in Interstellar Clouds and Circumstellar Envelopes. Astrophysical Journal, 2007, 662, L87-L90. | 4.5 | 98 |
| 36 | A 330-360 GHz spectral survey of G 34.3+0.15. I. Data and physical analysis. Astronomy and Astrophysics, 1996, 119, 333-367. | 2.1 | 97 |

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| 37 | On the Abundance Gradients of Organic Molecules along the TMCâ€1 Ridge. Astrophysical Journal, 2000, 535, 256-265. | 4.5 | 95 |
| 38 | The Synthesis of Benzene in the Protoâ€“planetary Nebula CRL 618. Astrophysical Journal, 2002, 574, L167-L170. | 4.5 | 95 |
| 39 | A GAP WITH A DEFICIT OF LARGE GRAINS IN THE PROTOPLANETARY DISK AROUND TW Hya. Astrophysical Journal Letters, 2016, 829, L35. | 8.3 | 90 |
| 40 | DENSITY-ENHANCED GAS AND DUST SHELLS IN A NEW CHEMICAL MODEL FOR IRC+10216. Astrophysical Journal, 2009, 697, 68-78. | 4.5 | 86 |
| 41 | A SCUBA imaging survey of ultracompact HII regions. Astronomy and Astrophysics, 2006, 453, 1003-1026. | 5.1 | 86 |
| 42 | CHEMICAL EVOLUTION OF PROTOPLANETARY DISKSâ€”THE EFFECTS OF VISCOUS ACCRETION, TURBULENT MIXING, AND DISK WINDS. Astrophysical Journal, 2011, 731, 115. | 4.5 | 82 |
| 43 | The chemistry of deuterium in hot molecular cores. Monthly Notices of the Royal Astronomical Society, 1996, 280, 1046-1054. | 4.4 | 81 |
| 44 | Dissociative Recombination of N2H+: Evidence for Fracture of the Nâ€”N Bond. Astrophysical Journal, 2004, 609, 459-464. | 4.5 | 81 |
| 45 | THE EFFECTS OF MOLECULAR ANIONS ON THE CHEMISTRY OF DARK CLOUDS. Astrophysical Journal, 2009, 700, 752-761. | 4.5 | 76 |
| 46 | Desorption processes and the deuterium fractionation in molecular clouds. Monthly Notices of the Royal Astronomical Society, 1998, 298, 562-568. | 4.4 | 74 |
| 47 | The chemistry of protoplanetary nebulae. Astronomy and Astrophysics, 2003, 402, 189-199. | 5.1 | 71 |
| 48 | Observational tests of interstellar methanol formation. Astronomy and Astrophysics, 2011, 533, A24. | 5.1 | 70 |
| 49 | Chemical modelling of molecular sources - VI. Carbon-bearing molecules in oxygen-rich circumstellar envelopes. Monthly Notices of the Royal Astronomical Society, 1988, 230, 79-86. | 4.4 | 64 |
| 50 | The chemistry of phosphorus in hot molecular cores. Monthly Notices of the Royal Astronomical Society, 1994, 270, 570-574. | 4.4 | 64 |
| 51 | Chemical modelling of molecular sources â€“ I. TMC-1. Monthly Notices of the Royal Astronomical Society, 1984, 207, 405-423. | 4.4 | 59 |
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| 53 | The importance of new rate coefficients for deuterium fractionation reactions in interstellar chemistry. Monthly Notices of the Royal Astronomical Society, 2002, 336, 283-290. | 4.4 | 59 |
| 54 | CANDIDATE WATER VAPOR LINES TO LOCATE THE H<sub>2</sub>O SNOWLINE THROUGH HIGH-DISPERSION SPECTROSCOPIC OBSERVATIONS. I. THE CASE OF A T TAURI STAR. Astrophysical Journal, 2016, 827, 113. | 4.5 | 58 |

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| 55 | (Sub)stellar companions shape the winds of evolved stars. Science, 2020, 369, 1497-1500. | 12.6 | 57 |
| 56 | Transport processes and chemical evolution in steady accretion disk flows. Astronomy and Astrophysics, 2004, 415, 643-659. | 5.1 | 57 |
| 57 | H2 emission in the EUV spectrum of T Tauri and Burnham's nebula. Nature, 1981, 290, 34-36. | 27.8 | 56 |
| 58 | Quality Assurance and Quality Control in the Global Trachoma Mapping Project. American Journal of Tropical Medicine and Hygiene, 2018, 99, 858-863. | 1.4 | 56 |
| 59 | On the origin of NH in diffuse interstellar clouds. Monthly Notices of the Royal Astronomical Society, 1993, 260, 420-424. | 4.4 | 55 |
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| 62 | PHOTODETACHMENT AS A DESTRUCTION MECHANISM FOR CN<sup>â€“</sup>AND C<sub>3</sub>N<sup>â€“</sup>ANIONS IN CIRCUMSTELLAR ENVELOPES. Astrophysical Journal, 2013, 776, 25. | 4.5 | 53 |
| 63 | A Decade with VAMDC: Results and Ambitions. Atoms, 2020, 8, 76. | 1.6 | 53 |
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| 65 | Grain-surface formation of multi-deuterated molecules. Monthly Notices of the Royal Astronomical Society, 1989, 240, 25P-29P. | 4.4 | 51 |
| 66 | Chemical modelling of molecular sources - IV. Time-dependent chemistry of dark clouds. Monthly Notices of the Royal Astronomical Society, 1985, 217, 507-522. | 4.4 | 49 |
| 67 | Carbon chemistry in Galactic bulge planetary nebulae. Monthly Notices of the Royal Astronomical Society, 2011, 414, 1667-1678. | 4.4 | 48 |
| 68 | Observational tests for grain chemistry: posterior isotopic labelling. Monthly Notices of the Royal Astronomical Society, 2004, 347, 157-162. | 4.4 | 45 |
| 69 | DISCOVERY OF INTERSTELLAR ANIONS IN CEPHEUS AND AURIGA. Astrophysical Journal Letters, 2011, 730, L18. | 8.3 | 42 |
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| 71 | The chemistry of SH+ in shocked interstellar gas. Monthly Notices of the Royal Astronomical Society, 1986, 221, 673-678. | 4.4 | 41 |
| 72 | Modelling deuterium fractionation in interstellar clouds. Planetary and Space Science, 2002, 50, 1189-1195. | 1.7 | 39 |

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| 76 | Cyanopolyynes in hot cores: modelling G305.2+0.2. Monthly Notices of the Royal Astronomical Society, 2009, 394, 221-230. | 4.4 | 37 |
| 77 | Discovery of An au-scale Excess in Millimeter Emission from the Protoplanetary Disk around TW Hya. Astrophysical Journal Letters, 2019, 878, L8. | 8.3 | 37 |
| 78 | The detection of hot ethanol in G34.3+0.15. Monthly Notices of the Royal Astronomical Society, 1995, 273, 25-29. | 4.4 | 36 |
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| 82 | Candidate Water Vapor Lines to Locate the H<sub>2</sub>O Snowline Through High-dispersion Spectroscopic Observations. II. The Case of a Herbig Ae Star. Astrophysical Journal, 2017, 836, 118. | 4.5 | 34 |
| 83 | NCCN in TMC-1 and IRC+10216. Monthly Notices of the Royal Astronomical Society, 2003, 341, 609-616. | 4.4 | 32 |
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| 85 | Effects of accretion flow on the chemical structure in the inner regions of protoplanetary disks. Astronomy and Astrophysics, 2009, 495, 183-188. | 5.1 | 31 |
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| 92 | An efficient gas phase synthesis for interstellar PN. Monthly Notices of the Royal Astronomical Society, 1987, 229, 41P-44P. | 4.4 | 29 |
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| 96 | Dust Continuum Emission and the Upper Limit Fluxes of Submillimeter Water Lines of the Protoplanetary Disk around HD 163296 Observed by ALMA. Astrophysical Journal, 2019, 875, 96. | 4.5 | 28 |
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| 98 | MOLECULAR LINE EMISSION FROM A PROTOPLANETARY DISK IRRADIATED EXTERNALLY BY A NEARBY MASSIVE STAR. Astrophysical Journal Letters, 2013, 766, L23. | 8.3 | 27 |
| 99 | Molecule production on interstellar oxide grains. Monthly Notices of the Royal Astronomical Society, 1978, 185, 915-926. | 4.4 | 26 |
| 100 | Chemical modelling of dark clouds in the LMC and SMC. Monthly Notices of the Royal Astronomical Society, 1990, 242, 92-97. | 4.4 | 26 |
| 101 | The chemistry of PAH and fullerene molecules in interstellar clouds. Monthly Notices of the Royal Astronomical Society, 1992, 259, 35P-39P. | 4.4 | 26 |
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| 104 | Silicon chemistry in dense clouds. Astrophysics and Space Science, 1980, 72, 509-517. | 1.4 | 25 |
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| 106 | Deuterium in interstellar clouds. Astronomy and Geophysics, 2005, 46, 2.29-2.32. | 0.2 | 25 |
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| 111 | A Molecular Line Survey of W3(OH) and W3 IRS 5 from 84.7 to 115.6 GHz: Observational Data and Analyses. Astrophysical Journal, Supplement Series, 2006, 162, 161-206. | 7.7 | 23 |
| 112 | Complex organic molecules along the accretion flow in isolated and externally irradiated protoplanetary disks. Faraday Discussions, 2014, 168, 389-421. | 3.2 | 23 |
| 113 | Directed gas phase formation of silicon dioxide and implications for the formation of interstellar silicates. Nature Communications, 2018, 9, 774. | 12.8 | 23 |
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| 115 | Organic Molecules in the Interstellar Medium. , 2004, , 17-31. | | 21 |
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| 117 | The cost of mapping trachoma: Data from the Global Trachoma Mapping Project. PLoS Neglected Tropical Diseases, 2017, 11, e0006023. | 3.0 | 21 |
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| 121 | Modelling enhanced density shells in the circumstellar envelope of IRC +10216. Monthly Notices of the Royal Astronomical Society, 2003, 339, 1041-1047. | 4.4 | 20 |
| 122 | Gas-phase models for the evolved planetary nebulae NGC 6781, M4-9 and NGC 7293. Monthly Notices of the Royal Astronomical Society, 2001, 325, 881-885. | 4.4 | 19 |
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| 125 | DISSOCIATIVE RECOMBINATION OF PROTONATED FORMIC ACID: IMPLICATIONS FOR MOLECULAR CLOUD AND COMETARY CHEMISTRY. Astrophysical Journal, 2010, 709, 1429-1434. | 4.5 | 19 |
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| 127 | Candidate Water Vapor Lines to Locate the H<sub>2</sub>O Snowline through High-dispersion Spectroscopic Observations. III. Submillimeter H<sub>2</sub> <sup>16</sup>O and H<sub>2</sub> <sup>18</sup>O Lines. Astrophysical Journal, 2018, 855, 62. | 4.5 | 18 |
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| 129 | A chemical dynamics study on the gas phase formation of thioformaldehyde (H<sub>2</sub>CS) and its thiohydroxycarbene isomer (HCSH). Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22712-22719. | 7.1 | 18 |
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| 135 | Formation of complex molecules in TMC-1. Nature, 1983, 301, 402-404. | 27.8 | 15 |
| 136 | The Formation of Large Interstellar Molecules. Monthly Notices of the Royal Astronomical Society, 1975, 173, 527-535. | 4.4 | 14 |
| 137 | Interstellar CH 3 CCD. Astrophysical Journal, 2005, 627, L117-L120. | 4.5 | 14 |
| 138 | High Spatial Resolution Observations of Molecular Lines toward the Protoplanetary Disk around TW Hya with ALMA. Astrophysical Journal, 2021, 914, 113. | 4.5 | 14 |
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| 152 | CH$_mathsf{2}$DCCH along the TMC-1 ridge. Astronomy and Astrophysics, 2002, 381, 560-565. | 5.1 | 11 |
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