

Jonathan Tennyson

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

834 papers	42,432 citations	89 h-index	173 g-index
896 ext. papers	47,310 ext. citations	3.5 avg, IF	7.51 L-index

#	Paper	IF	Citations
834	Low energy inelastic electron scattering from carbon monoxide: II. Excitation of the $b^3\Pi$, $j^3\Pi$, $B^1\Pi$, $C^1\Pi$ and $E^1\Pi$ Rydberg electronic states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2022 , 55, 025201	1.3	0
833	A Method for the Variational Calculation of Hyperfine-Resolved Rovibronic Spectra of Diatomic Molecules.. <i>Journal of Chemical Theory and Computation</i> , 2022 ,	6.4	2
832	Highly accurate HF dimer ab initio potential energy surface.. <i>Journal of Chemical Physics</i> , 2022 , 156, 164305		
831	Analysis of the accuracy of calculations using Duo and Level diatomic nuclear motion programs. <i>Journal of Molecular Spectroscopy</i> , 2022 , 111621	1.3	0
830	Partition sums for non-local thermodynamic equilibrium conditions for nine molecules of importance in planetary atmospheres. <i>Icarus</i> , 2022 , 378, 114947	3.8	1
829	Cross-sections for heavy atmospheres: H ₂ O self-broadening. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2022 , 283, 108146	2.1	0
828	RAS techniques and instruments 2022 , 1, 1-2		
827	Cross-sections for heavy atmospheres: H ₂ O continuum. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 278, 108013	2.1	2
826	Electron Scattering Cross-Section Calculations for Atomic and Molecular Iodine. <i>Atoms</i> , 2021 , 9, 103	2.1	1
825	ExoMol at 10. <i>Astronomy and Geophysics</i> , 2021 , 62, 6.16-6.21	0.2	0
824	Targeted Cross-Section Calculations for Plasma Simulations. <i>Atoms</i> , 2021 , 9, 85	2.1	0
823	HELIOS-K 2.0 Opacity Calculator and Open-source Opacity Database for Exoplanetary Atmospheres. <i>Astrophysical Journal, Supplement Series</i> , 2021 , 253, 30	8	26
822	The efficient calculation of electron impact ionization cross sections with effective core potentials. <i>Journal of Chemical Physics</i> , 2021 , 154, 114104	3.9	5
821	Variational analysis of HF dimer tunneling rotational spectra using an ab initio potential energy surface. <i>Journal of Molecular Spectroscopy</i> , 2021 , 379, 111481	1.3	1
820	ExoMol molecular line lists XLII. Rovibronic molecular line list for the low-lying states of NO. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021 , 504, 5768-5777	4.3	4
819	An improved rovibrational linelist of formaldehyde, H ₂ C ₁₆ O. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 266, 107563	2.1	7
818	Electric quadrupole transitions in carbon dioxide. <i>Journal of Chemical Physics</i> , 2021 , 154, 211104	3.9	3

817	Theoretical rovibronic spectroscopy of the calcium monohydroxide radical (CaOH). <i>Journal of Chemical Physics</i> , 2021 , 154, 234302	3.9	1
816	Cross Sections for Electron Collisions with H ₂ O. <i>Journal of Physical and Chemical Reference Data</i> , 2021 , 50, 023103	4.3	5
815	Synthesis of ab initio and effective Hamiltonian line lists for ozone. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 269, 107651	2.1	3
814	Original Research by Young Twinkle Students (ORBYTS): ephemeris refinement of transiting exoplanets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021 , 504, 5671-5684	4.3	9
813	A method for calculating temperature-dependent photodissociation cross sections and rates. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 16390-16400	3.6	6
812	Ionisation of PF: absolute partial electron ionisation cross sections and the formation and reactivity of dication states. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 11424-11437	3.6	1
811	Low-energy electron impact dissociative recombination and vibrational transitions of N ₂ ⁺ . <i>Journal of Applied Physics</i> , 2021 , 129, 053303	2.5	2
810	The ExoMolOP database: Cross sections and k-tables for molecules of interest in high-temperature exoplanet atmospheres. <i>Astronomy and Astrophysics</i> , 2021 , 646, A21	5.1	24
809	A spectroscopic model for the low-lying electronic states of NO. <i>Journal of Chemical Physics</i> , 2021 , 154, 074112	3.9	4
808	An experimentally-accurate and complete room-temperature infrared HCN line-list for the HITRAN database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 270, 107666	2.1	1
807	Determination of quantum labels based on projections of the total angular momentum on the molecule-fixed axis. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 270, 107716	2.1	1
806	Reduced density matrix sampling: Self-consistent embedding and multiscale electronic structure on current generation quantum computers. <i>Physical Review Research</i> , 2021 , 3,	3.9	2
805	A global line list for HDO between 0 and 35000 cm ⁻¹ constructed using multiphoton spectra. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 271, 107694	2.1	1
804	Cross Sections and Rate Coefficients for Vibrational Excitation of H ₂ O by Electron Impact. <i>Atoms</i> , 2021 , 9, 62	2.1	2
803	The HITRAN2020 molecular spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 277, 107949	2.1	96
802	The spectrum of ammonia near 0.793 μ m. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 273, 107838	2.1	1
801	The absorption spectrum of short-lived isotopic variant of water, H ₂ ¹⁵ O: Tentative detection at the Earth's atmosphere. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 276, 107929	2.1	0
800	The update of the line positions and intensities in the line list of carbon dioxide for the HITRAN2020 spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 276, 107896	2.1	2

799	ExoMol line lists [XLI]. High-temperature molecular line lists for the alkali metal hydroxides KOH and NaOH. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021 , 502, 1128-1135	4.3	2
798	Why SF ₆ eats electrons: identifying high electrical strength molecules from their electron collision properties. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2021 , 54, 025202	1.3	0
797	Rovibronic spectroscopy of PN from first principles. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 220573-220662	3.2	2
796	Calculated electron impact ionisation fragmentation patterns. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2021 , 54, 235203	1.3	0
795	Electron dissociative attachment to ArH ⁺ , HD ⁺ , N ₂ ⁺ and CO ₂ . <i>Journal of Physics: Conference Series</i> , 2020 , 1412, 172005	0.3	0
794	A Decade with VAMDC: Results and Ambitions. <i>Atoms</i> , 2020 , 8, 76	2.1	22
793	MARVEL Analysis of the Measured High-resolution Rovibronic Spectra of the Calcium Monohydroxide Radical (CaOH). <i>Astrophysical Journal, Supplement Series</i> , 2020 , 248, 9	8	5
792	Empirical normal intensity distribution for overtone vibrational spectra of triatomic molecules. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 252, 107084	2.1	6
791	Vibrationally resolved electron impact electronic excitation of BeH. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 , 53, 135202	1.3	0
790	Low energy inelastic electron scattering from carbon monoxide: I. excitation of the a ³ Π, a ⁵ Π and A ¹ Π electronic states.. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 ,	1.3	2
789	ExoMol line lists [XXXVIII]. High-temperature molecular line list of silicon dioxide (SiO ₂). <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 495, 1927-1933	4.3	5
788	Ions in the Thermosphere of Exoplanets: Observable Constraints Revealed by Innovative Laboratory Experiments. <i>Astrophysical Journal</i> , 2020 , 895, 77	4.7	10
787	Molecular cross-sections for high-resolution spectroscopy of super-Earths, warm Neptunes, and hot Jupiters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 495, 224-237	4.3	20
786	ExoMol line lists [XXXIX]. Ro-vibrational molecular line list for CO ₂ . <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 496, 5282-5291	4.3	22
785	W2020: A Database of Validated Rovibrational Experimental Transitions and Empirical Energy Levels of H ₂ 16O. <i>Journal of Physical and Chemical Reference Data</i> , 2020 , 49, 033101	4.3	10
784	Empirical Line Lists in the ExoMol Database. <i>Atoms</i> , 2020 , 8, 7	2.1	14
783	The high-temperature rotation-vibration spectrum and rotational clustering of silylene (SiH ₂). <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 246, 106929	2.1	9
782	Use of the complete basis set limit for computing highly accurate ab initio dipole moments. <i>Journal of Chemical Physics</i> , 2020 , 152, 024105	3.9	6

781	Empirical rovibrational energy levels of ammonia up to 7500 cm ⁻¹ . <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 251, 107027	2.1	12
780	ExoMol molecular line lists IXXXVII. Spectra of acetylene. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 493, 1531-1545	4.3	22
779	Recommended cross sections for electron collisions with molecules. <i>European Physical Journal D</i> , 2020 , 74, 1	1.3	4
778	Benchmark calculations of electron impact electronic excitation of the hydrogen molecule. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 , 53, 145204	1.3	12
777	Vibrationally resolved NO dissociative excitation cross sections by electron impact. <i>Plasma Sources Science and Technology</i> , 2020 , 29, 05LT02	3.5	3
776	Electron scattering studies of BF and BF ₂ . <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 , 53, 225203	1.3	1
775	A semi-empirical potential energy surface and line list for H ₂ O extending into the near-ultraviolet. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 10015-10027	6.8	8
774	Atomic and Molecular Scattering Applications in an Apache Airavata Science Gateway 2020 ,		1
773	Original Research by Young Twinkle Students (Orbyts): Ephemeris Refinement of Transiting Exoplanets II. <i>Research Notes of the AAS</i> , 2020 , 4, 109	0.8	0
772	Analysis of the first overtone bands of isotopologues of CO and SiO in stellar spectra. <i>Astronomy and Astrophysics</i> , 2020 , 633, A52	5.1	7
771	Analysis of the TiO isotopologues in stellar optical spectra. <i>Astronomy and Astrophysics</i> , 2020 , 642, A77	5.1	4
770	The W2020 Database of Validated Rovibrational Experimental Transitions and Empirical Energy Levels of Water Isotopologues. II. H ₂ 17O and H ₂ 18O with an Update to H ₂ 16O. <i>Journal of Physical and Chemical Reference Data</i> , 2020 , 49, 043103	4.3	12
769	Computational treatment of electron and photon collisions with atoms, ions, and molecules: the legacy of Philip G Burke. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 , 53, 192002	1.3	1
768	Electron collisions with CO molecule: potential energy curves of higher lying CO resonant states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 , 53, 195202	1.3	2
767	Electron collisions with molecular hydrogen from electronically excited states using the R-matrix method. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020 , 53, 245203	1.3	3
766	Dissociative electron attachment cross sections for ro-vibrationally excited NO molecule and N ⁺ anion formation. <i>Plasma Sources Science and Technology</i> , 2020 , 29, 10LT01	3.5	3
765	Identifiable Acetylene Features Predicted for Young Earth-like Exoplanets with Reducing Atmospheres Undergoing Heavy Bombardment. <i>Astrophysical Journal</i> , 2020 , 888, 21	4.7	12
764	UKRmol+: A suite for modelling electronic processes in molecules interacting with electrons, positrons and photons using the R-matrix method. <i>Computer Physics Communications</i> , 2020 , 249, 107092	4.2	40

763	ExoMol line lists IXL. Rovibrational molecular line list for the hydronium ion (H ₃ O ⁺). <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 497, 2340-2351	4.3	3
762	Electron Scattering Cross Sections for Anthracene and Pyrene. <i>Journal of Physical Chemistry A</i> , 2020 , 124, 7088-7100	2.8	3
761	Thirty years of H ₃ ⁺ astronomy. <i>Reviews of Modern Physics</i> , 2020 , 92,	40.5	13
760	The 2020 release of the ExoMol database: Molecular line lists for exoplanet and other hot atmospheres. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 255, 107228	2.1	54
759	An update to the MARVEL data set and ExoMol line list for 12C ₂ . <i>Monthly Notices of the Royal Astronomical Society</i> , 2020 , 497, 1081-1097	4.3	10
758	The infrared spectrum of PF ₃ and analysis of rotational energy clustering effect. <i>Molecular Physics</i> , 2020 , 118, e1581951	1.7	4
757	Calculated line lists for H ₂ 16O and H ₂ 18O with extensive comparisons to theoretical and experimental sources including the HITRAN2016 database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 241, 106711	2.1	8
756	Erratum to [Infrared absorption spectra of hot ammonia] [J Quant Spectrosc Radiat Transf 203 (2017) 410-416]. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 245, 106870	2.1	1
755	Plasma polymerization of cyclopropylamine in a low-pressure cylindrical magnetron reactor: A PIC-MC study of the roles of ions and radicals. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 033003	2.9	1
754	Fast species ranking for iterative species-oriented skeletal reduction of chemistry sets. <i>Plasma Sources Science and Technology</i> , 2020 , 29, 125024	3.5	1
753	ExoMol molecular line lists IXXXIII. The spectrum of Titanium Oxide. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019 , 488, 2836-2854	4.3	84
752	General mathematical formulation of scattering processes in atom-diatom collisions in the RmatReact methodology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180409	3	3
751	Water vapour in the atmosphere of the habitable-zone eight-Earth-mass planet K2-18 b. <i>Nature Astronomy</i> , 2019 , 3, 1086-1091	12.1	127
750	Accurate empirical rovibrational energies and transitions of HO. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 3473-3495	3.6	31
749	A variationally computed room temperature line list for AsH. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 3264-3277	3.6	7
748	MARVEL analysis of the measured high-resolution spectra of ¹⁴ NH. <i>Journal of Molecular Spectroscopy</i> , 2019 , 362, 69-76	1.3	18
747	Spectroscopic line parameters of NO, NO ₂ , and N ₂ O for the HITEMP database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019 , 232, 35-53	2.1	32
746	Low temperature scattering with the R-matrix method: argon-argon scattering. <i>Molecular Physics</i> , 2019 , 117, 3158-3170	1.7	5

745	Theoretical study of the low-energy electron-collision cross sections of isomers HOOCl, HOCLO and HCLOO in gas phase. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019 , 52, 165201	1.3	1
744	ExoMol line lists DXXXII. The rovibronic spectrum of MgO. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019 , 486, 2351-2365	4.3	14
743	Reduced chemistries with the Quantemol database (QDB). <i>Plasma Science and Technology</i> , 2019 , 21, 064006	1.5	3
742	Hydrogen molecular ions: H, H^+ and beyond. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180395	3	4
741	Calculated cross sections for low energy electron collision with OH. <i>Plasma Sources Science and Technology</i> , 2019 , 28, 085013	3.5	7
740	ExoMol line list DXXXIV. A rovibrational line list for phosphinidene (PH) in its $X^1\Sigma^+$ and $a^1\Delta$ electronic states. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019 , 488, 2332-2342	4.3	5
739	Angle-Resolved Electron Scattering from H_2O near 0° . <i>Physical Review Letters</i> , 2019 , 123, 033401	7.4	5
738	Roadmap on photonic, electronic and atomic collision physics: II. Electron and antimatter interactions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019 , 52, 171002	1.3	14
737	Quantemol Electron Collisions (QEC): An Enhanced Expert System for Performing Electron Molecule Collision Calculations Using the R-Matrix Method. <i>Atoms</i> , 2019 , 7, 97	2.1	15
736	ExoMol molecular line lists XXXVI: $X^2\Sigma^+$ and $A^2\Pi$ transitions of SH. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019 , 490, 1652-1665	4.3	14
735	Astronomical Spectroscopy. <i>Advanced Textbooks in Physics</i> , 2019 ,	1	3
734	Electron Collisions with CO Molecule: An R-Matrix Study Using a Large Basis Set. <i>Springer Proceedings in Physics</i> , 2019 , 48-59	0.2	1
733	Low-Temperature Scattering with the R-Matrix Method: The Morse Potential. <i>Springer Proceedings in Physics</i> , 2019 , 257-273	0.2	2
732	The VoTe Room Temperature H_2^{16}O Line List up to 25 000 cm^{-1} . <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2019 , 127, 967-973	0.7	3
731	The ExoMol project: An update. <i>Proceedings of the International Astronomical Union</i> , 2019 , 15, 287-296	0.1	
730	ExoMol molecular line lists DXXXV. A rotation-vibration line list for hot ammonia. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019 , 490, 4638-4647	4.3	41
729	Spectroscopy of YO from first principles. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 22794-22810	3.6	9
728	Cross Sections for Electron Collisions with NO, N ₂ O, and NO ₂ . <i>Journal of Physical and Chemical Reference Data</i> , 2019 , 48, 043104	4.3	12

727	R-matrix study for electron scattering of beryllium dihydride for fusion plasma. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019 , 52, 065204	1.3	2
726	Analysis of gaseous ammonia (NH ₃) absorption in the visible spectrum of Jupiter - Update. <i>Icarus</i> , 2019 , 321, 572-582	3.8	9
725	A global potential energy surface for H ₃ ⁺ . <i>Molecular Physics</i> , 2019 , 117, 1663-1672	1.7	11
724	Electron-impact excitation of diatomic hydride cations II: OH ⁺ and SH ⁺ . <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 476, 2931-2937	4.3	7
723	Downstream etching of silicon nitride using continuous-wave and pulsed remote plasma sources sustained in Ar/NF ₃ /O ₂ mixtures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 021305	2.9	13
722	Analysis of the red and green optical absorption spectrum of gas phase ammonia. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 209, 224-231	2.1	8
721	Potential energy surface, dipole moment surface and the intensity calculations for the 10 µm, 5 µm and 3 µm bands of ozone. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 210, 127-135	2.1	12
720	Original Research By Young Twinkle Students (ORBYTS): when can students start performing original research?. <i>Physics Education</i> , 2018 , 53, 015020	0.8	13
719	High-accuracy water potential energy surface for the calculation of infrared spectra. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	20
718	An experimental water line list at 1950 K in the 6250-6670 cm ⁻¹ region. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 205, 213-219	2.1	9
717	High Accuracy ab Initio Calculations of Rotational-Vibrational Levels of the HCN/HNC System. <i>Journal of Physical Chemistry A</i> , 2018 , 122, 1326-1343	2.8	7
716	Critical evaluation of measured rotational-vibrational transitions of four sulphur isotopologues of S ₁₆ O ₂ . <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 208, 152-163	2.1	25
715	MARVEL analysis of the measured high-resolution rovibrational spectra of C ₂ H ₂ . <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 204, 42-55	2.1	35
714	ExoMol molecular line lists IXVII. Spectra of C ₂ H ₄ . <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 478, 3220-3232	4.3	29
713	The ExoMol Atlas of Molecular Opacities. <i>Atoms</i> , 2018 , 6, 26	2.1	36
712	Calculated electron impact dissociation cross sections for molecular chlorine (Cl ₂). <i>Plasma Sources Science and Technology</i> , 2018 , 27, 095008	3.5	7
711	EXOCROSS: a general program for generating spectra from molecular line lists. <i>Astronomy and Astrophysics</i> , 2018 , 614, A131	5.1	78
710	Marvel analysis of the measured high-resolution rovibrational spectra of H ₂ S ₂ . <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 218, 178-186	2.1	21

709	ExoMol line lists XXV: a hot line list for silicon sulphide, SiS. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 477, 1520-1527	4.3	10
708	Theoretical study of ArH ⁺ dissociative recombination and electron-impact vibrational excitation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 479, 2415-2420	4.3	8
707	TWINKLE: a low earth orbit visible and infrared exoplanet spectroscopy observatory 2018 ,		4
706	The ARIEL space mission 2018 ,		8
705	Marvel Analysis of the Measured High-resolution Rovibronic Spectra of 90Zr16O. <i>Astrophysical Journal</i> , 2018 , 867, 33	4.7	20
704	ExoMol line lists XXXI: spectroscopy of lowest eight electronic states of C2. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 480, 3397-3411	4.3	20
703	Low-energy collisions between electrons and BeD ⁺ . <i>Plasma Sources Science and Technology</i> , 2018 , 27, 025015	3.5	5
702	ExoMol molecular line lists [XXVI]: spectra of SH and NS. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 478, 270-282	4.3	15
701	A chemical survey of exoplanets with ARIEL. <i>Experimental Astronomy</i> , 2018 , 46, 135-209	1.3	148
700	A Population Study of Gaseous Exoplanets. <i>Astronomical Journal</i> , 2018 , 155, 156	4.9	144
699	Improved potential energy surface and spectral assignments for ammonia in the near-infrared region. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 219, 199-212	2.1	21
698	Synthetic spectra of BeH, BeD and BeT for emission modeling in JET plasmas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018 , 51, 185701	1.3	13
697	ExoMol line lists [XXIX]. The rotation-vibration spectrum of methyl chloride up to 1200 K. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 479, 3002-3010	4.3	9
696	ExoMol line lists XXVIII: the rovibronic spectrum of AlH. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 479, 1401-1411	4.3	25
695	A new spectroscopically-determined potential energy surface and ab initio dipole moment surface for high accuracy HCN intensity calculations. <i>Journal of Molecular Spectroscopy</i> , 2018 , 353, 40-53	1.3	6
694	ExoMol molecular line lists XXX: a complete high-accuracy line list for water. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 480, 2597-2608	4.3	145
693	A highly accurate dipole moment surface for the ground electronic state of water vapour for spectra extending into the ultraviolet. <i>Journal of Chemical Physics</i> , 2018 , 149, 084307	3.9	17
692	ExoMol line lists XXIV: a new hot line list for silicon monohydride, SiH. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018 , 473, 5324-5333	4.3	26

691	Treating linear molecule HCCH in calculations of rotation-vibration spectra. <i>Journal of Chemical Physics</i> , 2018 , 149, 014101	3.9	14
690	Molecular Spectroscopy for Exoplanets. <i>Astrophysics and Space Science Library</i> , 2018 , 91-132	0.3	
689	Pressure-dependent water absorption cross sections for exoplanets and other atmospheres. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017 , 187, 453-460	2.1	34
688	TIMEDeLn: A programme for the detection and parametrization of overlapping resonances using the time-delay method. <i>Computer Physics Communications</i> , 2017 , 215, 137-148	4.2	8
687	GPU Accelerated Einstein-MPI (GAIN-MPI): A new method of computing Einstein-A coefficients. <i>Computer Physics Communications</i> , 2017 , 214, 216-224	4.2	15
686	Theoretical resonant electron-impact vibrational excitation, dissociative recombination and dissociative excitation cross sections of ro-vibrationally excited BeH ⁺ ion. <i>Plasma Physics and Controlled Fusion</i> , 2017 , 59, 045008	2	12
685	State-to-state chemistry and rotational excitation of CH in photon-dominated regions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017 , 469, 612-620	4.3	22
684	Total internal partition sums for 166 isotopologues of 51 molecules important in planetary atmospheres: Application to HITRAN2016 and beyond. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017 , 203, 70-87	2.1	94
683	MARVEL Analysis of the Measured High-resolution Rovibronic Spectra of 48 Ti 16 O. <i>Astrophysical Journal, Supplement Series</i> , 2017 , 228, 15	8	42
682	Calculated cross sections for electron collisions with NF ₃ , NF ₂ and NF with applications to remote plasma sources. <i>Plasma Sources Science and Technology</i> , 2017 , 26, 065010	3.5	27
681	Electron-He ₂ ⁺ scattering calculation using the R-matrix method: resonant and bound states of He ₂ . <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017 , 50, 115203	1.3	
680	Insights to scaling remote plasma sources sustained in NF ₃ mixtures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 031302	2.9	16
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20	Quantum dynamics of the van der Waals molecule (N ₂) ₂ : An ab initio treatment. <i>Journal of Chemical Physics</i> , 1982 , 77, 5664-5681	3.9	93
19	Ab initio vibrational-rotational spectrum of potassium cyanide: KCN. II. Large amplitude motions and rovibrational coupling. <i>Journal of Chemical Physics</i> , 1982 , 76, 5710-5718	3.9	34
18	Ab initio vibrational-rotational spectrum of potassium cyanide: KCN. <i>Molecular Physics</i> , 1982 , 46, 97-109	1.7	23
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16	The ground-state H ₃ molecule. <i>Chemical Physics Letters</i> , 1982 , 86, 181-184	2.5	12
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13	Many-body contributions to the intermolecular potential in alkali halide crystals and clusters. <i>Molecular Physics</i> , 1981 , 42, 747-755	1.7	24
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