Eliza M-R Kempton

List of Publications by Year
in descending order

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67 papers	3,938 citations	126907 33 h-index	128289 60 g-index
70 all docs	70 docs citations	70 times ranked	2288 citing authors

#	Article	IF	Citations
1	Strong H₂O and CO Emission Features in the Spectrum of KELT-20b Driven by Stellar UV Irradiation. Astrophysical Journal Letters, 2022, 925, L3.	8.3	16
2	Effects of UV Stellar Spectral Uncertainty on the Chemistry of Terrestrial Atmospheres. Astrophysical Journal, 2022, 927, 90.	4.5	21
3	No Umbrella Needed: Confronting the Hypothesis of Iron Rain on WASP-76b with Post-processed General Circulation Models. Astrophysical Journal, 2022, 926, 85.	4.5	22
4	A New Analysis of Eight Spitzer Phase Curves and Hot Jupiter Population Trends: Qatar-1b, Qatar-2b, WASP-52b, WASP-34b, and WASP-140b. Astronomical Journal, 2022, 163, 256.	4.7	10
5	Confirmation of Water Absorption in the Thermal Emission Spectrum of the Hot Jupiter WASP-77Ab with HST/WFC3. Astronomical Journal, 2022, 163, 261.	4.7	11
6	The Featureless HST/WFC3 Transmission Spectrum of the Rocky Exoplanet GJ 1132b: No Evidence for a Cloud-free Primordial Atmosphere and Constraints on Starspot Contamination. Astronomical Journal, 2022, 164, 59.	4.7	26
7	Clouds in Three-dimensional Models of Hot Jupiters over a Wide Range of Temperatures. I. Thermal Structures and Broadband Phase-curve Predictions. Astrophysical Journal, 2021, 908, 101.	4.5	51
8	Signatures of Clouds in Hot Jupiter Atmospheres: Modeled High-resolution Emission Spectra from 3D General Circulation Models. Astrophysical Journal, 2021, 909, 85.	4.5	13
9	A comprehensive reanalysis of Spitzerâ€™s 4.5â€‰Î¼m phase curves, and the phase variations of the ultra-hot Jupiters MASCARA-1b and KELT-16b. Monthly Notices of the Royal Astronomical Society, 2021, 504, 3316-3337.	4.4	28
10	The High-energy Spectrum of the Nearby Planet-hosting Inactive Mid-M Dwarf LHS 3844. Astronomical Journal, 2021, 162, 10.	4.7	10
11	Haze evolution in temperate exoplanet atmospheres through surface energy measurements. Nature Astronomy, 2021, 5, 822-831.	10.1	27
12	The Hubble PanCET Program: Transit and Eclipse Spectroscopy of the Strongly Irradiated Giant Exoplanet WASP-76b. Astronomical Journal, 2021, 162, 108.	4.7	23
13	Spitzer Phase-curve Observations and Circulation Models of the Inflated Ultrahot Jupiter WASP-76b. Astronomical Journal, 2021, 162, 158.	4.7	27
14	A Significant Increase in Detection of High-resolution Emission Spectra Using a Three-dimensional Atmospheric Model of a Hot Jupiter. Astronomical Journal, 2021, 161, 1.	4.7	41
15	A unique hot Jupiter spectral sequence with evidence for compositional diversity. Nature Astronomy, 2021, 5, 1224-1232.	10.1	40
16	A solar C/O and sub-solar metallicity in a hot Jupiter atmosphere. Nature, 2021, 598, 580-584.	27.8	82
17	Understanding the Effects of Systematics in Exoplanetary Atmospheric Retrievals. Astronomical Journal, 2021, 162, 237.	4.7	6
18	Modeling the High-resolution Emission Spectra of Clear and Cloudy Nontransiting Hot Jupiters. Astrophysical Journal, 2021, 923, 62.	4.5	3

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19	Evidence for H2 Dissociation and Recombination Heat Transport in the Atmosphere of KELT-9b. Astrophysical Journal Letters, 2020, 888, L15.	8.3	57
20	Sulfur-driven haze formation in warm CO2-rich exoplanet atmospheres. Nature Astronomy, 2020, 4, 986-993.	10.1	33
21	Smaller than Expected Bright-spot Offsets in Spitzer Phase Curves of the Hot Jupiter Qatar-1b. Astronomical Journal, 2020, 159, 225.	4.7	13
22	Simultaneous Optical Transmission Spectroscopy of a Terrestrial, Habitable-zone Exoplanet with Two Ground-based Multiobject Spectrographs. Astronomical Journal, 2020, 160, 27.	4.7	16
23	Optical Transmission Spectroscopy of the Terrestrial Exoplanet LHS 3844b from 13 Ground-based Transit Observations. Astronomical Journal, 2020, 160, 188.	4.7	18
24	Nondetection of Helium in the Upper Atmospheres of Three Sub-Neptune Exoplanets. Astronomical Journal, 2020, 160, 258.	4.7	44
25	Estimating the Ultraviolet Emission of M Dwarfs with Exoplanets from Ca ii and HÎ±. Astronomical Journal, 2020, 160, 269.	4.7	21
26	PLATON II: New Capabilities and a Comprehensive Retrieval on HD 189733b Transit and Eclipse Data. Astrophysical Journal, 2020, 899, 27.	4.5	68
27	Chemistry of Temperate Super-Earth and Mini-Neptune Atmospheric Hazes from Laboratory Experiments. Planetary Science Journal, 2020, 1, 17.	3.6	34
28	Haze Formation in Warm H₂-rich Exoplanet Atmospheres. Planetary Science Journal, 2020, 1, 51.	3.6	34
29	Constraining Exoplanet Metallicities and Aerosols with the Contribution to ARIEL Spectroscopy of Exoplanets (CASE). Publications of the Astronomical Society of the Pacific, 2019, 131, 094401.	3.1	15
30	A sub-Neptune exoplanet with a low-metallicity methane-depleted atmosphere and Mie-scattering clouds. Nature Astronomy, 2019, 3, 813-821.	10.1	151
31	First exoplanet found around a Sun-like star. Nature, 2019, 575, 43-44.	27.8	2
32	The Precision of Mass Measurements Required for Robust Atmospheric Characterization of Transiting Exoplanets. Astrophysical Journal Letters, 2019, 885, L25.	8.3	70
33	LyÎ± in the GJ 1132 System: Stellar Emission and Planetary Atmospheric Evolution. Astronomical Journal, 2019, 158, 50.	4.7	19
34	Proxima Centauri b is not a transiting exoplanet. Monthly Notices of the Royal Astronomical Society, 2019, 487, 268-274.	4.4	21
35	The High-resolution Transmission Spectrum of HD 189733b Interpreted with Atmospheric Doppler Shifts from Three-dimensional General Circulation Models. Astronomical Journal, 2019, 157, 209.	4.7	69
36	Forward Modeling and Retrievals with PLATON, a Fast Open-source Tool. Publications of the Astronomical Society of the Pacific, 2019, 131, 034501.	3.1	88

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37	Stellar Activity Effects on Moist Habitable Terrestrial Atmospheres around M Dwarfs. Astrophysical Journal, 2019, 887, 34.	4.5	13
38	Water Vapor and Clouds on the Habitable-zone Sub-Neptune Exoplanet K2-18b. Astrophysical Journal Letters, 2019, 887, L14.	8.3	183
39	Analyzing Atmospheric Temperature Profiles and Spectra of M Dwarf Rocky Planets. Astrophysical Journal, 2019, 886, 142.	4.5	30
40	Identifying Atmospheres on Rocky Exoplanets through Inferred High Albedo. Astrophysical Journal, 2019, 886, 141.	4.5	37
41	Gas Phase Chemistry of Cool Exoplanet Atmospheres: Insight from Laboratory Simulations. ACS Earth and Space Chemistry, 2019, 3, 39-50.	2.7	38
42	Identifying Candidate Atmospheres on Rocky M Dwarf Planets via Eclipse Photometry. Astrophysical Journal, 2019, 886, 140.	4.5	46
43	Haze production rates in super-Earth and mini-Neptune atmosphere experiments. Nature Astronomy, 2018, 2, 303-306.	10.1	93
44	Laboratory Simulations of Haze Formation in the Atmospheres of Super-Earths and Mini-Neptunes: Particle Color and Size Distribution. Astrophysical Journal Letters, 2018, 856, L3.	8.3	48
45	Detection of Helium in the Atmosphere of the Exo-Neptune HAT-P-11b. Astrophysical Journal Letters, 2018, 868, L34.	8.3	73
46	A Framework for Prioritizing the TESS Planetary Candidates Most Amenable to Atmospheric Characterization. Publications of the Astronomical Society of the Pacific, 2018, 130, 114401.	3.1	314
47	The Transiting Exoplanet Community Early Release Science Program for JWST. Publications of the Astronomical Society of the Pacific, 2018, 130, 114402.	3.1	100
48	No Metallicity Correlation Associated with the Kepler Dichotomy. Astronomical Journal, 2018, 155, 134.	4.7	11
49	An HST/STIS Optical Transmission Spectrum of Warm Neptune GJ 436b. Astronomical Journal, 2018, 155, 66.	4.7	33
50	Photochemical Haze Formation in the Atmospheres of Super-Earths and Mini-Neptunes. Astronomical Journal, 2018, 156, 38.	4.7	59
51	Ground-based Optical Transmission Spectroscopy of the Small, Rocky Exoplanet GJ 1132b. Astronomical Journal, 2018, 156, 42.	4.7	52
52	Challenges to Constraining Exoplanet Masses via Transmission Spectroscopy. Astrophysical Journal Letters, 2017, 836, L5.	8.3	47
53	A Statistical Comparative Planetology Approach to the Hunt for Habitable Exoplanets and Life Beyond the Solar System. Astrophysical Journal Letters, 2017, 841, L24.	8.3	80
54	Exo-Transmit: An Open-Source Code for Calculating Transmission Spectra for Exoplanet Atmospheres of Varied Composition. Publications of the Astronomical Society of the Pacific, 2017, 129, 044402.	3.1	105

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55	KEPLER TRANSIT DEPTHS CONTAMINATED BY A PHANTOM STAR. Astronomical Journal, 2017, 153, 59.	4.7	31
56	An Observational Diagnostic for Distinguishing between Clouds and Haze in Hot Exoplanet Atmospheres. Astrophysical Journal Letters, 2017, 845, L20.	8.3	43
57	Constraining Hot Jupiter Atmospheric Structure and Dynamics through Doppler-shifted Emission Spectra. Astrophysical Journal, 2017, 851, 84.	4.5	46
58	KELT-18b: Puffy Planet, Hot Host, Probably Perturbed. Astronomical Journal, 2017, 153, 263.	4.7	30
59	Quantifying the Impact of Spectral Coverage on the Retrieval of Molecular Abundances from Exoplanet Transmission Spectra. Publications of the Astronomical Society of the Pacific, 2017, 129, 104402.	3.1	4
60	CLOUDS IN SUPER-EARTH ATMOSPHERES: CHEMICAL EQUILIBRIUM CALCULATIONS. Astrophysical Journal, 2016, 827, 121.	4.5	59
61	Transiting Exoplanet Studies and Community Targets forJWST's Early Release Science Program. Publications of the Astronomical Society of the Pacific, 2016, 128, 094401.	3.1	98
62	THERMAL EMISSION AND REFLECTED LIGHT SPECTRA OF SUPER EARTHS WITH FLAT TRANSMISSION SPECTRA. Astrophysical Journal, 2015, 815, 110.	4.5	196
63	Observations of Transiting Exoplanets with the James Webb Space Telescope (JWST). Publications of the Astronomical Society of the Pacific, 2014, 126, 1134-1173.	3.1	245
64	HIGH RESOLUTION TRANSMISSION SPECTROSCOPY AS A DIAGNOSTIC FOR JOVIAN EXOPLANET ATMOSPHERES: CONSTRAINTS FROM THEORETICAL MODELS. Astrophysical Journal, 2014, 795, 24.	4.5	33
65	HUBBLE SPACE TELESCOPENEAR-IR TRANSMISSION SPECTROSCOPY OF THE SUPER-EARTH HD 97658B. Astrophysical Journal, 2014, 794, 155.	4.5	164
66	A FRAMEWORK FOR CHARACTERIZING THE ATMOSPHERES OF LOW-MASS LOW-DENSITY TRANSITING PLANETS. Astrophysical Journal, 2013, 775, 80.	4.5	208
67	QUANTITATIVELY ASSESSING THE ROLE OF CLOUDS IN THE TRANSMISSION SPECTRUM OF GJ 1214b. Astrophysical Journal, 2013, 775, 33.	4.5	189