

# James E Lawler

## List of Publications by Year in descending order

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49  
papers

3,975  
citations

257450

24  
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233421

45  
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docs citations

49  
times ranked

2833  
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy Levels of Singly Ionized and Neutral Hafnium. <i>Astrophysical Journal, Supplement Series</i> , 2022, 258, 27.	7.7	1
2	The R-process Alliance: A Nearly Complete R-process Abundance Template Derived from Ultraviolet Spectroscopy of the R-process-enhanced Metal-poor Star HD 222925*. <i>Astrophysical Journal, Supplement Series</i> , 2022, 260, 27.	7.7	32
3	Origin of the heaviest elements: The rapid neutron-capture process. <i>Reviews of Modern Physics</i> , 2021, 93, .	45.6	326
4	Linemake: An Atomic and Molecular Line List Generator. <i>Research Notes of the AAS</i> , 2021, 5, 92.	0.7	49
5	Improved Atomic Transition Probabilities for UV and Optical Lines of Hf II and Determination of the Hf Abundance in Two Metal-poor Stars*. <i>Astrophysical Journal, Supplement Series</i> , 2021, 254, 5.	7.7	5
6	Voltage and cathode emission mechanisms of a magnetized, constricted, orbiting plasma in helium 6.7â€“850 Pa. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 295201.	2.8	4
7	Detection of Al ii in the Ultraviolet Spectra of Metal-poor Stars: An Empirical LTE Test of NLTE Aluminum Abundance Calculations*. <i>Astrophysical Journal</i> , 2021, 912, 119.	4.5	9
8	Atomic Transition Probabilities of Neutral Calcium*. <i>Astrophysical Journal, Supplement Series</i> , 2021, 255, 27.	7.7	12
9	Hyperfine Structure Constants for Levels of $^{175}\text{Lu}^{+}$ . <i>Astrophysical Journal, Supplement Series</i> , 2020, 248, 10.	7.7	6
10	Detailed Iron-peak Element Abundances in Three Very Metal-poor Stars*. <i>Astrophysical Journal</i> , 2020, 890, 119.	4.5	18
11	Vanadium Abundance Derivations in 255 Metal-poor Stars*. <i>Astrophysical Journal</i> , 2020, 900, 106.	4.5	14
12	Detection of Pb II in the Ultraviolet Spectra of Three Metal-poor Stars*. <i>Astrophysical Journal Letters</i> , 2020, 902, L24.	8.3	10
13	Atomic Transition Probabilities for UV and Blue Lines of Fe ii and Abundance Determinations in the Photospheres of the Sun and Metal-poor Star HD 84937. <i>Astrophysical Journal, Supplement Series</i> , 2019, 243, 33.	7.7	22
14	Erosion rates of diffuse and constricted magnetron discharges in helium over aluminium, gallium, molybdenum, and tantalum. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 435203.	2.8	6
15	Operating modes of a magnetized cold cathode plasma in helium 50â€“6400 mTorr. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 435202.	2.8	9
16	Improving branching fraction calibration methods: The optical to ultraviolet bridge. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 237, 106620.	2.3	1
17	Transition Probabilities of Sc i and Sc ii and Scandium Abundances in the Sun, Arcturus, and HD 84937. <i>Astrophysical Journal, Supplement Series</i> , 2019, 241, 21.	7.7	30
18	Quantitative atomic spectroscopy, a review of progress in the optical-UV region and future opportunities. <i>Proceedings of the International Astronomical Union</i> , 2019, 15, 301-305.	0.0	0

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19	Vanadium Transitions in the Spectrum of Arcturus. <i>Astrophysical Journal, Supplement Series</i> , 2018, 234, 25.	7.7	12
20	Improving the Ar i and ii branching ratio calibration method: Monte Carlo simulations of effects from photon scattering/reflecting in hollow cathodes. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 207, 41-47.	2.3	4
21	Consistent Iron Abundances Derived from Neutral and Singly Ionized Iron Lines in Ultraviolet and Optical Spectra of Six Warm Metal-poor Stars <sup>+</sup> . <i>Astrophysical Journal</i> , 2018, 860, 125.	4.5	21
22	Application of Laboratory Atomic Physics to Some Significant Stellar Chemical Composition Questions. <i>Atoms</i> , 2018, 6, 48.	1.6	3
23	Transition Probabilities of Co ii Weak Lines to the Ground and Low Metastable Levels. <i>Astrophysical Journal, Supplement Series</i> , 2018, 238, 7.	7.7	18
24	Chemical Compositions of Evolved Stars from Near-infrared IGRINS High-resolution Spectra. I. Abundances in Three Red Horizontal Branch Stars. <i>Astrophysical Journal</i> , 2018, 865, 44.	4.5	18
25	Fe i Oscillator Strengths for Transitions from High-lying Odd-parity Levels. <i>Astrophysical Journal</i> , 2017, 848, 125.	4.5	29
26	The Apache Point Observatory Galactic Evolution Experiment (APOGEE). <i>Astronomical Journal</i> , 2017, 154, 94.	4.7	1,065
27	IRON-GROUP ABUNDANCES IN THE METAL-POOR MAIN-SEQUENCE TURNOFF STAR HD 84937. <i>Astrophysical Journal</i> , 2016, 817, 53.	4.5	96
28	IDENTIFICATION OF NEODYMIUM IN THE APOGEE H-BAND SPECTRA. <i>Astrophysical Journal</i> , 2016, 833, 81.	4.5	51
29	<i>HUBBLE SPACE TELESCOPE</i> NEAR-ULTRAVIOLET SPECTROSCOPY OF BRIGHT CEMP- <i>s</i> STARS. <i>Astrophysical Journal</i> , 2015, 812, 109.	4.5	33
30	Atomic Data for Stellar Nucleosynthesis. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 287-290.	0.0	4
31	NEW DETECTIONS OF ARSENIC, SELENIUM, AND OTHER HEAVY ELEMENTS IN TWO METAL-POOR STARS. <i>Astrophysical Journal</i> , 2014, 791, 32.	4.5	54
32	<i>HUBBLE SPACE TELESCOPE</i> NEAR-ULTRAVIOLET SPECTROSCOPY OF THE BRIGHT CEMP-NO STAR BD+44°493. <i>Astrophysical Journal</i> , 2014, 790, 34.	4.5	33
33	NEW <i>HUBBLE SPACE TELESCOPE</i> OBSERVATIONS OF HEAVY ELEMENTS IN FOUR METAL-POOR STARS. <i>Astrophysical Journal, Supplement Series</i> , 2012, 203, 27.	7.7	116
34	Aberration-corrected echelle spectrometer for measuring ultraviolet branching fractions of iron-group ions. <i>Applied Optics</i> , 2012, 51, 8407.	1.8	21
35	DETECTION OF ELEMENTS AT ALL THREE <i>r</i> -PROCESS PEAKS IN THE METAL-POOR STAR HD 160617 <sup>+</sup> . <i>Astrophysical Journal</i> , 2012, 750, 76.	4.5	78
36	DETECTION OF THE SECOND <i>r</i> -PROCESS PEAK ELEMENT TELLURIUM IN METAL-POOR STARS. <i>Astrophysical Journal Letters</i> , 2012, 747, L8.	8.3	44

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37	NEW ABUNDANCE DETERMINATIONS OF CADMIUM, LUTETIUM, AND OSMIUM IN THE $r$ -PROCESS ENRICHED STAR BD +17 3248 <sup>&lt;sup&gt;</sup> </sup>. <i>Astrophysical Journal Letters</i> , 2010, 714, L123-L127.	8.3	54
38	NEW RARE EARTH ELEMENT ABUNDANCE DISTRIBUTIONS FOR THE SUN AND FIVE $r$ -PROCESS-RICH VERY METAL-POOR STARS. <i>Astrophysical Journal, Supplement Series</i> , 2009, 182, 80-96.	7.7	165
39	Broadband, high-resolution spatial heterodyne spectrometer. <i>Applied Optics</i> , 2008, 47, 6371.	2.1	30
40	Abundance Signatures in Halo Stars: Clues to Nucleosynthesis in the First Stars. , 2008, , .		0
41	Europium, Samarium, and Neodymium Isotopic Fractions in Metal-Poor Stars. , 2008, , .		0
42	An Observational Perspective on Some Aspects of Early Stellar Nucleosynthesis. , 2008, , .		0
43	Europium, Samarium, and Neodymium Isotopic Fractions in Metal-Poor Stars. <i>Astrophysical Journal</i> , 2008, 675, 723-745.	4.5	53
44	Improved Laboratory Transition Probabilities for Neutral Chromium and Redetermination of the Chromium Abundance for the Sun and Three Stars. <i>Astrophysical Journal</i> , 2007, 667, 1267-1282.	4.5	138
45	Near-Ultraviolet Observations of HD 221170: New Insights into the Nature of $r$ -Process-rich Stars. <i>Astrophysical Journal</i> , 2006, 645, 613-633.	4.5	186
46	Hubble Space Telescope Observations of Heavy Elements in Metal-Poor Galactic Halo Stars. <i>Astrophysical Journal</i> , 2005, 627, 238-250.	4.5	107
47	The Rise of the $r$ -Process in the Galaxy. <i>Astrophysical Journal</i> , 2004, 617, 1091-1114.	4.5	291
48	The Extremely Metal-Poor, Neutron Capture-rich Star CS 22892-052: A Comprehensive Abundance Analysis. <i>Astrophysical Journal</i> , 2003, 591, 936-953.	4.5	430
49	The Chemical Composition and Age of the Metal-Poor Halo Star BD +17o3248. <i>Astrophysical Journal</i> , 2002, 572, 861-879.	4.5	267