

# Trevor M Sprouse

## List of Publications by Year in descending order

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Version: 2024-02-01

27  
papers

977  
citations

471509

17  
h-index

552781

26  
g-index

27  
all docs

27  
docs citations

27  
times ranked

839  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Origin of r-process Elements in the Milky Way. <i>Astrophysical Journal</i> , 2018, 855, 99.	4.5	168
2	Californium-254 and Kilonova Light Curves. <i>Astrophysical Journal Letters</i> , 2018, 863, L23.	8.3	80
3	Using excitation-energy dependent fission yields to identify key fissioning nuclei in r-process nucleosynthesis. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2019, 46, 065202.	3.6	73
4	Kilonovae Across the Nuclear Physics Landscape: The Impact of Nuclear Physics Uncertainties on r-process-powered Emission. <i>Astrophysical Journal</i> , 2021, 918, 44.	4.5	66
5	$\hat{I}^2$ -delayed Fission in r-process Nucleosynthesis. <i>Astrophysical Journal</i> , 2018, 869, 14.	4.5	63
6	Modeling Kilonova Light Curves: Dependence on Nuclear Inputs. <i>Astrophysical Journal</i> , 2021, 906, 94.	4.5	63
7	Actinide Production in the Neutron-rich Ejecta of a Neutron Star Merger. <i>Astrophysical Journal</i> , 2019, 870, 23.	4.5	62
8	Full Transport General Relativistic Radiation Magnetohydrodynamics for Nucleosynthesis in Collapsars. <i>Astrophysical Journal</i> , 2020, 902, 66.	4.5	58
9	Estimation of $\langle \mathcal{M} \rangle$ scissors mode strength for deformed nuclei in the medium- to heavy-mass region by statistical Hauser-Feshbach model calculations. <i>Physical Review C</i> , 2017, 96, .	2.9	42
10	$^{129}\text{I}$ and $^{247}\text{Cm}$ in meteorites constrain the last astrophysical source of solar r-process elements. <i>Science</i> , 2021, 371, 945-948.	12.6	37
11	Actinide-rich and Actinide-poor r-process-enhanced Metal-poor Stars Do Not Require Separate r-process Progenitors. <i>Astrophysical Journal</i> , 2019, 881, 5.	4.5	36
12	Propagation of statistical uncertainties of Skyrme mass models to simulations of r-process nucleosynthesis. <i>Physical Review C</i> , 2020, 101, .	2.9	32
13	Coproduction of Light and Heavy r-process Elements via Fission Deposition. <i>Astrophysical Journal</i> , 2020, 896, 28.	4.5	32
14	Gamma Rays from Kilonova: A Potential Probe of r-process Nucleosynthesis. <i>Astrophysical Journal</i> , 2020, 889, 168.	4.5	29
15	$\hat{I}^2$ -decay half-lives of 55 neutron-rich isotopes beyond the shell gap. <i>Physical Review C</i> , 2020, 101, .	2.9	23
16	Following nuclei through nucleosynthesis: A novel tracing technique. <i>Physical Review C</i> , 2021, 104, .	2.9	19
17	MeV Gamma Rays from Fission: A Distinct Signature of Actinide Production in Neutron Star Mergers. <i>Astrophysical Journal Letters</i> , 2020, 903, L3.	8.3	18
18	First Application of Mass Measurements with the Rare-RI Ring Reveals the Solar r-Process Abundance Trend at $A < 122$ and $A < 82$ .	7.8	16

#	ARTICLE	IF	CITATIONS
19	Astromers in the Radioactive Decay of r-process Nuclei. <i>Astrophysical Journal Letters</i> , 2021, 913, L2.	8.3	15
20	Sensitivity of Neutron-Rich Nuclear Isomer Behavior to Uncertainties in Direct Transitions. <i>Symmetry</i> , 2021, 13, 1831.	2.2	14
21	Reconstructing Masses of Merging Neutron Stars from Stellar r-process Abundance Signatures. <i>Astrophysical Journal</i> , 2021, 909, 21.	4.5	13
22	Sandblasting the r-process: Spallation of Ejecta from Neutron Star Mergers. <i>Astrophysical Journal</i> , 2020, 893, 92.	4.5	8
23	Isochronic Evolution and the Radioactive Decay of r-process Nuclei. <i>Astrophysical Journal</i> , 2022, 929, 22.	4.5	4
24	Characterizing r-Process Sites through Actinide Production. <i>Journal of Physics: Conference Series</i> , 2020, 1668, 012020.	0.4	2
25	Probing the fission properties of neutron-rich actinides with the astrophysical $r$ process. <i>EPJ Web of Conferences</i> , 2020, 242, 04002.	0.3	2
26	The Impact of Nuclear Physics Uncertainties on Interpreting Kilonova Light Curves. <i>EPJ Web of Conferences</i> , 2022, 260, 03004.	0.3	2
27	Spallation of r-Process Nuclei Ejected from a Neutron Star Merger. <i>Journal of Physics: Conference Series</i> , 2020, 1668, 012049.	0.4	0