Origin of the heaviest elements: The rapid neutron-capt

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#	Article	IF	Citations
1	Chemical evolution with rotating massive star yields II. A new assessment of the solar s- and r-process components. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	72
2	Nucleosynthesis in magneto-rotational supernovae. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	39
3	Inhomogeneity in the early Galactic chemical enrichment exposed by beryllium abundances in extremely metal-poor stars. Astronomy and Astrophysics, 2021, 646, A70.	2.1	8
4	Rubidium abundances in solar metallicity stars. Astronomy and Astrophysics, 2021, 648, A107.	2.1	2
5	Examining the nuclear mass surface of Rb and Sr isotopes in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>A</mml:mi><mml:mo>â‰ˆ</mml:mo><mml:mn>104</m region via precision mass measurements. Physical Review C, 2021, 103, .	1.1	6
6	Improved Atomic Transition Probabilities for UV and Optical Lines of Hf II and Determination of the Hf Abundance in Two Metal-poor Stars*. Astrophysical Journal, Supplement Series, 2021, 254, 5.	3.0	5
7	Measurement of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow /><mml:mn>72</mml:mn></mml:msup><mml:mi>Ge</mml:mi><mml:mn>(</mml:mn><mml:mrow><mml:mi>n</mml:mi><mml:mo>,< cross section over a wide neutron energy range at the CERN n_TOF facility. Physical Review C, 2021, 103, .	1.1	5
8	Electron capture in stars. Reports on Progress in Physics, 2021, 84, 066301.	8.1	37
9	Evolution of neutron capture elements in dwarf galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 505, 2913-2931.	1.6	17
10	Signatures of r-process Elements in Kilonova Spectra. Astrophysical Journal, 2021, 913, 26.	1.6	40
11	⁶⁰ Fe and ²⁴⁴ Pu deposited on Earth constrain the r-process yields of recent nearby supernovae. Science, 2021, 372, 742-745.	6.0	60
12	Abundances of neutron-capture elements in thin- and thick-disc stars in the solar neighbourhood. Astronomy and Astrophysics, 2021, 649, A126.	2.1	17
13	Î²-delayed neutron emission of r-process nuclei at the Nâ€¯=â€¯82 shell closure. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 816, 136266.	1.5	21
14	A Low-mass Binary Neutron Star: Long-term Ejecta Evolution and Kilonovae with Weak Blue Emission. Astrophysical Journal, 2021, 913, 100.	1.6	40
15	<i>s-</i>process enrichment of ultrafaint dwarf galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 505, 3755-3766.	1.6	4
16	Neutron star mergers as the astrophysical site of the r-process in the Milky Way and its satellite galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 505, 5862-5883.	1.6	24
17	Systematics of prompt black-hole formation in neutron star mergers. Physical Review D, 2021, 103, .	1.6	35
18	The Abundance of Lead in Four Metal-poor Stars. Astrophysical Journal Letters, 2021, 914, L22.	3.0	3

#	Article	IF	Citations
19	Experimental and theoretical studies of excited states in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Ir</mml:mi></mml:mrow><mml:mo>âˆ’</mn Physical Review A, 2021, 103, .	1.0	6
20	Constraints on the presence of platinum and gold in the spectra of the kilonova AT2017gfo. Monthly Notices of the Royal Astronomical Society, 2021, 506, 3560-3577.	1.6	32
21	Sensitivity Study of r-process Abundances to Nuclear Masses. Astrophysical Journal, 2021, 915, 29.	1.6	14
22	Origin of metals in old Milky Way halo stars based on GALAH and Gaia. Monthly Notices of the Royal Astronomical Society, 2021, 506, 5410-5429.	1.6	10
23	Heavy elements in barium stars. Monthly Notices of the Royal Astronomical Society, 2021, 507, 1956-1971.	1.6	13
24	Open Challenges to Nuclear Physics Resulting from the Neutron Star Merger. Nuclear Physics News, 2021, 31, 11-16.	0.1	1
25	Following nuclei through nucleosynthesis: A novel tracing technique. Physical Review C, 2021, 104, .	1.1	19
26	Contributions from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Î›</mml:mi></mml:math> hyperons to nucleosynthesis in kilonovae. Physical Review C, 2021, 104, .	1.1	1
27	Astrophysical reaction rates of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e6953" altimg="si202.svg"><mml:mi>Î±</mml:mi></mml:math>-induced reactions for nuclei with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e6958" altimg="si8.svg"><mml:mrow><mml:mn>26</mml:mn><mml:mo linebreak="goodbreak" linebreakstyle="after">â‰</mml:mo><mml:mi>Z</mml:mi><mml:mo linebreak="goodbreak" linebreakstyle="after">â‰</mml:mo><mml:mn>83</mml:mn></mml:mrow></m. Atomic Data and Nuclear	0.9	12
28	The metal-poor end of the Spite plateau. Astronomy and Astrophysics, 2021, 654, A170.	2.1	6
29	Progress in nuclear astrophysics of east and southeast Asia. AAPPS Bulletin, 2021, 31, 1.	2.7	5
30	Odd-even staggering for production cross sections ofnuclei near the neutron drip-line *. Chinese Physics C, 2021, 45, 084109.	1.5	4
31	Effect of the Landau quantization of electrons on the inner crusts of hot neutron stars. Physical Review C, 2021, 104, .	1.1	1
32	The status and future of direct nuclear reaction measurements for stellar burning. Journal of Physics G: Nuclear and Particle Physics, 2022, 49, 010501.	1.4	13
33	Examination of n âˆ' T 9 conditions required by N = 50, 82, 126 waiting points in r-process. Communications in Theoretical Physics, 2021, 73, 105301.	1.1	1
34	Photonuclear reactionsâ€"From basic research to applications. Progress in Particle and Nuclear Physics, 2022, 122, 103903.	5.6	58
35	QCD phase transition drives supernova explosion of a very massive star. European Physical Journal A, 2021, 57, 1.	1.0	13
36	Gamma-Ray Emission Produced by r-process Elements from Neutron Star Mergers. Astrophysical Journal, 2021, 919, 59.	1.6	11

#	Article	IF	Citations
37	A Global Numerical Model of the Prompt Emission in Short Gamma-ray Bursts. Astrophysical Journal, 2021, 918, 59.	1.6	20
38	First Multimessenger Observations of a Neutron Star Merger. Annual Review of Astronomy and Astrophysics, 2021, 59, 155-202.	8.1	66
39	Measurement of the ⁹¹Zr(p,Î³)^{92m}Nb cross section motivated by type Ia supernova nucleosynthesis. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 105202.	1.4	5
40	Masses of exotic nuclei. Progress in Particle and Nuclear Physics, 2021, 120, 103882.	5.6	31
41	Activation thick target yield measurement of Mo100(Î±,n)Ru103 for studying the weak r -process nucleosynthesis. Physical Review C, 2021, 104, .	1.1	11
42	Towards grounding nuclear physics in QCD. Progress in Particle and Nuclear Physics, 2021, 121, 103888.	5.6	36
43	Complete set of bound negative-parity states in the neutron-rich nucleus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">N</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>18</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>. Physical Review C, 2021, 104, .	1.1	6
44	Î²-Decay properties of neutron-rich yttrium isotopes. Physica Scripta, 2021, 96, 125312.	1.2	2
45	Internal R-process Abundance Spread of M15 and a Single Stellar Population Model. Astrophysical Journal Letters, 2021, 921, L11.	3.0	2
46	The formation of the Milky Way halo and its dwarf satellites: A NLTEâ€“1D abundance analysis. V. The Sextans galaxy. Monthly Notices of the Royal Astronomical Society, 2021, 509, 3626-3642.	1.6	8
47	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> -delayed one-neutron emission probabilities within a neural network model. Physical Review C, 2021, 104, .	1.1	7
48	Dynamical ejecta of neutron star mergers with nucleonic weak processes â€" II: kilonova emission. Monthly Notices of the Royal Astronomical Society, 2022, 510, 2820-2840.	1.6	26
49	Mass Distribution of Fission Fragments and Abundances of Heavy Nuclei Produced in the r-Process. Physics of Atomic Nuclei, 2021, 84, 683-693.	0.1	1
50	Dynamical ejecta of neutron star mergers with nucleonic weak processes I: nucleosynthesis. Monthly Notices of the Royal Astronomical Society, 2022, 510, 2804-2819.	1.6	39
51	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mo>(</mml:mo><mml:mmultiscripts><mml:mi>Li</mml:mi><mml:mpresc and <mml:math		

#	Article	IF	Citations
56	Silicon and strontium abundances of very metal-poor stars determined from near-infrared spectra. Publication of the Astronomical Society of Japan, 2022, 74, 273-282.	1.0	3
57	Simultaneous Constraints on the Star Formation History and Nucleosynthesis of Sculptor dSph. Astrophysical Journal, 2022, 925, 66.	1.6	16
58	Expanding Nuclear Physics Horizons with the Gamma Factory. Annalen Der Physik, 2022, 534, .	0.9	21
59	Constraints on R-process nucleosynthesis from 129I and 247Cm in the early solar system. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	2
60	Anisotropic Multimessenger Signals from Black Hole Neutrino-dominated Accretion Flows with Outflows in Binary Compact Object Mergers. Astrophysical Journal, 2022, 925, 43.	1.6	11
61	Advanced breakup-nucleon enhancement of deuteron-induced reaction cross sections. European Physical Journal A, 2022, 58, 1.	1.0	7
62	Theoretical description of fission yields: Toward a fast and efficient global model. Physical Review C, 2022, 105, .	1.1	9
63	Status and perspectives of neutrino physics. Progress in Particle and Nuclear Physics, 2022, 124, 103947.	5.6	31
64	Radiation hydrodynamics modelling of kilonovae with<tt>SNEC</tt>. Monthly Notices of the Royal Astronomical Society, 2022, 512, 328-347.	1.6	17
65	The Complex Behaviour of s-Process Element Abundances at Young Ages. Universe, 2022, 8, 110.	0.9	5
66	Structure Calculations in Nd III and U III Relevant for Kilonovae Modelling. Atoms, 2022, 10, 18.	0.7	7
67	r-Process Contributions to Low-Metallicity Stars. EPJ Web of Conferences, 2022, 260, 09002.	0.1	2
68	Exploring the uncertainties of (<i>Î±</i>, <i>xn</i>) reactions for the weak r-process. EPJ Web of Conferences, 2022, 260, 07003.	0.1	0
69	Observational properties of peculiar core-collapse super-novae producing r-process elements. EPJ Web of Conferences, 2022, 260, 11011.	0.1	0
70	A Nuclear Equation of State Inferred from Stellar r-process Abundances. Astrophysical Journal, 2022, 926, 196.	1.6	5
71	Evidence from Disrupted Halo Dwarfs that r-process Enrichment via Neutron Star Mergers is Delayed by â‰³500 Myr. Astrophysical Journal Letters, 2022, 926, L36.	3.0	33
72	Laser Induced Breakdown Spectroscopy of Er II for Transition Probability Measurements. Applied Sciences (Switzerland), 2022, 12, 2219.	1.3	1
73	Collective Neutrino Flavor Instability Requires a Crossing. Physical Review Letters, 2022, 128, 081102.	2.9	30

#	Article	IF	Citations
74	Constraints on the dipole photon strength for the odd uranium isotopes. Physical Review C, 2022, 105, .	1.1	1
75	Metal-poor Stars Observed with the Southern African Large Telescope II. An Extended Sample. Astrophysical Journal, 2022, 927, 13.	1.6	7
76	Correlations of<i>r</i>-process elements in very metal-poor stars as clues to their nucleosynthesis sites. Astronomy and Astrophysics, 2022, 663, A70.	2.1	14
77	Improved phenomenological nuclear charge radius formulae with kernel ridge regression *. Chinese Physics C, 2022, 46, 074105.	1.5	11
78	Challenges and Requirements in High-Precision Nuclear Astrophysics Experiments. Universe, 2022, 8, 216.	0.9	0
79	A new moment-based general-relativistic neutrino-radiation transport code: Methods and first applications to neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2022, 512, 1499-1521.	1.6	46
80	The impact of natal kicks on galactic r-process enrichment by neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2022, 512, 5258-5268.	1.6	14
81	Correlations between nuclear landscape boundaries and neutron-rich <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>r</mml:mi></mml:math> -process abundances. Physical Review C, 2022, 105, .	1.1	4
82	Isochronic Evolution and the Radioactive Decay of r-process Nuclei. Astrophysical Journal, 2022, 929, 22.	1.6	4
83	r-Process nucleosynthesis in gravitational-wave and other explosive astrophysical events. Nature Reviews Physics, 2022, 4, 306-318.	11.9	18
84	Mixing and Magnetic Fields in Asymptotic Giant Branch Stars in the Framework of FRUITY Models. Universe, 2022, 8, 16.	0.9	5
85	Microscopic Structure of the Low-Energy Electric Dipole Response of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Sn</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>120</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2021, 127, 242501.	2.9	11
86	r-Process Radioisotopes from Near-Earth Supernovae and Kilonovae. Astrophysical Journal, 2021, 923, 219.	1.6	15
87	Supernova Preshock Neutronization Burst as a Probe of Nonstandard Neutrino Interactions. Astrophysical Journal Letters, 2021, 923, L26.	3.0	2
88	Synthesis of Heavy Elements in the Universe. Astronomy and Astrophysics Library, 2022, , 169-202.	0.2	1
89	Noniterative finite amplitude methods for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>E</mml:mi><mml:mn>1</mml:mn></mml:mrow></mm xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>M</mml:mi><mml:mn>1</mml:mn></mml:mrow></mm resonances. Physical Review C, 2022, 105, .	1.1	4
90	First Application of Mass Measurements with the Rare-RI Ring Reveals the Solar <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>r</mml:mi></mml:mrow></mml:math> -Process Abundance Trend at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>A</mml:mi><mml:mo>=</mml:mo><mml:mn>122</mml:mn></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>A</mml:mi><	2.9	16
91	Maxwellian-averaged cross section of 181Ta (n,Î³) reaction and its astrophysical implications. Nuclear Physics A, 2022, 1023, 122450.	0.6	3

#	Article	IF	Citations
92	NEAR: A New Station to Study Neutron-Induced Reactions of Astrophysical Interest at CERN-n_TOF. Universe, 2022, 8, 255.	0.9	8
93	Simulating neutron star mergers with the Lagrangian Numerical Relativity code SPHINCS_BSSN. European Physical Journal A, 2022, 58, 1.	1.0	8
94	Fast neutrino conversion in hydrodynamic simulations of neutrino-cooled accretion disks. Physical Review D, 2022, 105, .	1.6	41
95	Two new r-process-enhanced stars with [Fe/H] > âˆ’0.6 dex from the LAMOST-MRS survey. Research in Astronomy and Astrophysics, 0, , .	0.7	0
96	Theory of nuclear fission. Progress in Particle and Nuclear Physics, 2022, 125, 103963.	5.6	34
97	Microscopic theory for nuclear fission dynamics. AAPPS Bulletin, 2022, 32, .	2.7	2
98	Relativistic Hartreeâ€“Fock model and its recent progress on the description of nuclear structure[*]. Communications in Theoretical Physics, 2022, 74, 097301.	1.1	2
99	Neutrino emission from binary neutron star mergers: characterising light curves and mean energies. European Physical Journal A, 2022, 58, .	1.0	22
100	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math> -Ray Flashes from Dark Photons in Neutron Star Mergers. Physical Review Letters, 2022, 128, .	2.9	7
101	The NEXT Project: Towards Production and Investigation of Neutron-Rich Heavy Nuclides. Atoms, 2022, 10, 59.	0.7	4
103	New Developments in the Production and Research of Actinide Elements. Atoms, 2022, 10, 61.	0.7	3
104	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*. Astrophysical Journal, Supplement Series, 2022, 260, 27.	3.0	32
105	Application of kernel ridge regression in predicting neutron-capture reaction cross-sections. Communications in Theoretical Physics, 2022, 74, 095302.	1.1	6
106	Origin of Plutonium-244 in the Early Solar System. Universe, 2022, 8, 343.	0.9	1
107	Shell Model Applications in Nuclear Astrophysics. Physics, 2022, 4, 677-689.	0.5	6
108	Four-hundred Very Metal-poor Stars Studied with LAMOST and Subaru. II. Elemental Abundances. Astrophysical Journal, 2022, 931, 147.	1.6	28
109	Cosmic nucleosynthesis: A multi-messenger challenge. Progress in Particle and Nuclear Physics, 2022, 127, 103983.	5.6	18
110	Electromagnetic Counterparts of Binary-neutron-star Mergers Leading to a Strongly Magnetized Long-lived Remnant Neutron Star. Astrophysical Journal, 2022, 933, 22.	1.6	12

#	Article	IF	Citations
111	Influence of Spontaneous Fission Rates on the r-process Nucleosynthesis. Astrophysical Journal, 2022, 933, 3.	1.6	5
112	Galactic Chemical Evolution of Exoplanet Hosting Stars: Are High-mass Planetary Systems Young?. Astronomical Journal, 2022, 164, 60.	1.9	5
113	Nuclear masses learned from a probabilistic neural network. Physical Review C, 2022, 106, .	1.1	15
114	History of heavy r-process elements in galactic cosmic rays from nuclei tracks in meteorite olivine. Advances in Space Research, 2022, , .	1.2	2
115	High-precision <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Sm</mml:mi><mml:mprescripts /><mml:none /><mml:mn>144</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>Î±</mml:mi><mml:mo>,</mml:mo><mml:mi>Î±</mr /><mml:none /><mml:mn>144</mml:mn></mml:mmultiscripts></mml:mrow></mml:math> scattering at low energies and the rate of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/. Physical Revie	1.1	3
116	The production of actinides in neutron star mergers. AAPPS Bulletin, 2022, 32, .	2.7	3
117	Beta-decay half-lives of the isotopes close to the neutron drip line and astrophysical implications. Physica Scripta, 2022, 97, 085301.	1.2	1
118	Simulating excited states of the Lipkin model on a quantum computer. Physical Review C, 2022, 106, .	1.1	12
119	Enrichment of the Galactic disc with neutron-capture elements: Gd, Dy, and Th. Monthly Notices of the Royal Astronomical Society, 2022, 516, 3786-3801.	1.6	1
120	Constraining Nucleosynthesis in Neutrino-driven Winds: Observations, Simulations, and Nuclear Physics. Astrophysical Journal, 2022, 935, 27.	1.6	12
121	Nuclear mass predictions with machine learning reaching the accuracy required by <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>r</mml:mi></mml:math> -process studies. Physical Review C, 2022, 106, .	1.1	20
122	r-process Viable Outflows are Suppressed in Global Alpha-viscosity Models of Collapsar Disks. Astrophysical Journal Letters, 2022, 934, L30.	3.0	14
123	Chemical and stellar properties of early-type dwarf galaxies around the Milky Way. Nature Astronomy, 2022, 6, 911-922.	4.2	4
124	Controlling extrapolations of nuclear properties with feature selection. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 833, 137336.	1.5	3
125	Temperature dependence of cluster decay. Nuclear Physics A, 2022, 1028, 122524.	0.6	0
126	Multi-task learning on nuclear masses and separation energies with the kernel ridge regression. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 834, 137394.	1.5	14
127	Nuclear Isomers. , 2022, , 1-37.		1
128	Nuclear Data and Experiments for Astrophysics. Lecture Notes in Physics, 2022, , 141-179.	0.3	0

#	Article	IF	Citations
129	Spin assignment and statistical properties of neutron resonances from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Dy</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>161</mml:mn><mml:mo>,</mml:mo><mml:mn>163</mml:mn></mml:mrow></mml:mmultiscripts><mml:mo and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><. Physical Rev	1.1	1
130	The neutron-capture and Î±-elements abundance ratios scatter in old stellar populations: cosmological simulations of the stellar halo. Monthly Notices of the Royal Astronomical Society, 2022, 516, 6075-6095.	1.6	0
131	The R-Process Alliance: Abundance Universality among Some Elements at and between the First and Second R-Process Peaks*. Astrophysical Journal, 2022, 936, 84.	1.6	9
132	Superoperator Approach to the Theory of Hot Nuclei and Astrophysical Applications: Iâ€"Spectral Properties of Hot Nuclei. Physics of Particles and Nuclei, 2022, 53, 885-938.	0.2	4
134	Possibilities and Limitations of Kinematically Identifying Stars from Accreted Ultra-faint Dwarf Galaxies. Astrophysical Journal, 2022, 937, 14.	1.6	10
135	Measuring the Î²-decay Properties of Neutron-rich Exotic Pm, Sm, Eu, and Gd Isotopes to Constrain the Nucleosynthesis Yields in the Rare-earth Region. Astrophysical Journal, 2022, 936, 107.	1.6	9
136	Half-life prediction of some neutron-rich exotic nuclei prior to peak A = 130. Physica Scripta, 2022, 97, 115301.	1.2	0
137	Neutron-capture measurement candidates for the r-process in neutron star mergers. Frontiers in Astronomy and Space Sciences, 0, 9, .	1.1	3
138	Insight into History of GCR Heavy Nuclei Fluxes by Their Tracks in Meteorites. Physics of Atomic Nuclei, 2022, 85, 446-458.	0.1	1
139	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î²</mml:mi></mml:math> -Delayed One and Two Neutron Emission Probabilities Southeast of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Sn</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>132</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> a	2.9	8
140	Fast flavor instability in hypermassive neutron star disk outflows. Physical Review D, 2022, 106, .	1.6	21
141	Alpha decay of thermally excited nuclei. Journal of Physics G: Nuclear and Particle Physics, 2023, 50, 015203.	1.4	4
142	Origin of highly <i>r</i>-process-enhanced stars in a cosmological zoom-in simulation of a Milky Way-like galaxy. Monthly Notices of the Royal Astronomical Society, 2022, 517, 4856-4874.	1.6	15
143	Status of the high-intensity heavy-ion accelerator facility in China. AAPPS Bulletin, 2022, 32, .	2.7	13
144	Signatures of r-process Enrichment in Supernovae from Collapsars. Astrophysical Journal Letters, 2022, 939, L29.	3.0	12
145	Gross theory of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> decay by considering the spin-orbit splitting from relativistic Hartree-Bogoliubov theory. Physical Review C, 2022, 106, .	1.1	3
146	The <i>Gaia</i>-ESO survey: Placing constraints on the origin of <i>r</i>-process elements. Astronomy and Astrophysics, 2023, 670, A129.	2.1	5
147	Magnetorotational supernovae: a nucleosynthetic analysis of sophisticated 3D models. Monthly Notices of the Royal Astronomical Society, 2022, 518, 1557-1583.	1.6	24

#	Article	IF	Citations
148	Parametrizations of thermal bomb explosions for core-collapse supernovae and 56Ni production. Monthly Notices of the Royal Astronomical Society, 2022, 518, 1818-1839.	1.6	2
149	<i>r</i>-process nucleosynthesis and kilonovae from hypermassive neutron star post-merger remnants. Monthly Notices of the Royal Astronomical Society, 2022, 518, 5313-5322.	1.6	10
150	Heavy Elements and Electromagnetic Transients from Neutron Star Mergers. Annalen Der Physik, 2024, 536, .	0.9	8
151	Probing Nuclear Structure with Photon Beams. , 2022, , 1-45.		0
152	Fission Properties of Neutron-Rich Nuclei around the End Point of r-Process. Chinese Physics Letters, 2023, 40, 012401.	1.3	1
153	Masses of Exotic Nuclei. , 2022, , 1-38.		1
154	Model for Collective Vibration. , 2022, , 1-35.		3
155	Simulations of Burning and Nucleosynthesis in a Thermonuclear Supernova. Astronomy Letters, 2022, 48, 447-454.	0.1	0
156	Horizons: nuclear astrophysics in the 2020s and beyond. Journal of Physics G: Nuclear and Particle Physics, 2022, 49, 110502.	1.4	16
157	High-resolution spectroscopic analysis of four new chemically peculiar stars. Monthly Notices of the Royal Astronomical Society, 2022, 518, 5414-5443.	1.6	3
158	Neutrinos and Heavy Element Nucleosynthesis. , 2023, , 1-19.		0
159	Ð"ÐµÐ²ÑÑ‚ÑŒ Ð±Ð»Ð¸Ð·ÐºÐ¸Ñ… Ðš-Ð³Ð¸Ð³Ð°Ð½Ñ‚Ð¾Ð² Ñ•Ð¿Ð»Ð°Ð½ÐµÑ‚Ð°Ð¼Ð¸: Ð ÐµÑ‚Ð°Ð»ÑŒÐ½Ñ‹Ð¹ Ð°Ð½Ð°Ð»Ð¸Ð· Ñ…		
160	High-precision Nuclear Chronometer for the Cosmos. Astrophysical Journal, 2022, 941, 152.	1.6	3
161	Effects of Vertical Advection on Multimessenger Signatures of Black Hole Neutrino-dominated Accretion Flows in Compact Binary Coalescences. Astrophysical Journal, 2022, 941, 156.	1.6	0
162	Origin of the elements. Astronomy and Astrophysics Review, 2023, 31, .	9.1	22
163	â€œSuper-kilonovaeâ€•from Massive Collapsars as Signatures of Black Hole Birth in the Pair-instability Mass Gap. Astrophysical Journal, 2022, 941, 100.	1.6	8
164	RR Lyrae stars as probes of the outer Galactic halo: Chemical and kinematic analysis of a pilot sample. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	1
165	Quadrupole and octupole collectivity in the semi-magic nucleus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msubsup><mml:mrow /><mml:mrow><mml:mn>80</mml:mn></mml:mrow><mml:mrow><mml:mn>206</mml:mn></mml:mrow></mml:msubsup></mml:ma… Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2023, 838, 137675.	1.5	1

#	Article	IF	Citations
166	R-Process Nucleosynthesis in Neutron Star Merger Ejecta and Nuclear Dependences. , 2023, , 1-26.		0
167	Binary neutron star merger simulations with neutrino transport and turbulent viscosity: impact of different schemes and grid resolution. Monthly Notices of the Royal Astronomical Society, 2023, 520, 1481-1503.	1.6	15
168	Comprehensive Study of Mass Ejection and Nucleosynthesis in Binary Neutron Star Mergers Leaving Short-lived Massive Neutron Stars. Astrophysical Journal, 2023, 942, 39.	1.6	28
169	Impact on Science and Technology. , 2023, , 401-464.		1
170	Nucleosynthesis in Jet-Driven and Jet-Associated Supernovae. , 2023, , 1-38.		0
171	Cepheid Metallicity in the Leavitt Law (C- MetaLL) survey â€" II. High-resolution spectroscopy of the most metal poor Galactic Cepheids. Monthly Notices of the Royal Astronomical Society, 2022, 519, 2331-2348.	1.6	12
172	Nine Nearby K-Giants with Planets: A Detailed Analysis of their Chemical Composition. Astrophysics, 2022, 65, 494-511.	0.1	1
173	Long-term simulations of dynamical ejecta: Homologous expansion and kilonova properties. Physical Review D, 2023, 107, .	1.6	9
174	The R-Process Alliance: Chemodynamically Tagged Groups. II. An Extended Sample of Halo r-process-enhanced Stars. Astrophysical Journal, 2023, 943, 23.	1.6	5
175	MonteÂCarloâ€"based relativistic radiation hydrodynamics code with a higher-order scheme. Physical Review D, 2023, 107, .	1.6	6
176	Impact of Nuclear Î²-decay Half-life Uncertainties on the r-process Simulations. Astrophysical Journal, 2023, 943, 102.	1.6	8
177	Modelling populations of kilonovae. Monthly Notices of the Royal Astronomical Society, 2023, 520, 2829-2842.	1.6	6
178	From the slow to the rapid neutron capture process. European Physical Journal A, 2023, 59, .	1.0	2
179	Stellar Î²â^' Decay Rates for 63Co and 63Ni by the Projected Shell Model. Symmetry, 2023, 15, 315.	1.1	2
180	Lifetimes of Exotic Nuclei. , 2023, , 1-35.		0
181	Dynamics and Equation of State Dependencies of Relevance for Nucleosynthesis in Supernovae and Neutron Star Mergers. , 2023, , 1-98.		2
182	The Advanced Implantation Detector Array (AIDA). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2023, 1050, 168166.	0.7	3
183	Microscopic Theory of Nuclear Fission. , 2022, , 1-38.		0

#	Article	IF	Citations
184	Nuclear properties for nuclear astrophysics studies. European Physical Journal A, 2023, 59, .	1.0	3
185	Cross sectionÂmeasurement of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Sm</mml:mi><mml:mprescripts /><mml:none /><mml:mn>144</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>Î±</mml:mi><mml:mo>,</mml:mo><mml:mi>n</m /><mml:none /><mml:mn>147</mml:mn></mml:mmultiscripts></mml:mrow></mml:math> reaction for studying the <mml:math xmlns:mml="http://www.w3.org/1998/Math/Mat. Physical Review C, 2023, 107, .	1.1	2
186	GRMHD Simulations of Neutron-star Mergers with Weak Interactions: r-process Nucleosynthesis and Electromagnetic Signatures of Dynamical Ejecta. Astrophysical Journal, 2023, 944, 28.	1.6	14
187	Metal Mixing in the r-process Enhanced Ultrafaint Dwarf Galaxy Reticulum II*. Astronomical Journal, 2023, 165, 100.	1.9	11
188	Charge Exchange Spectroscopy of Multiply Charged Erbium Ions. Atoms, 2023, 11, 40.	0.7	0
189	Spectroscopic r-Process Abundance Retrieval for Kilonovae. I. The Inferred Abundance Pattern of Early Emission from GW170817. Astrophysical Journal, 2023, 944, 123.	1.6	11
190	$$Bho $$-defined isochronous mass spectrometry and mass measurements of ^{58}Ni fragments. European Physical Journal A, 2023, 59, .	1.0	9
191	Nucleosynthesis and observation of the heaviest elements. European Physical Journal A, 2023, 59, .	1.0	13
192	Kilonova Emission and Heavy Element Nucleosynthesis. Universe, 2023, 9, 105.	0.9	2
193	Supporting the CMB cosmic age from nuclear physics. Science Bulletin, 2023, 68, 539-541.	4.3	0
194	Observations of R-Process Stars in the Milky Way and Dwarf Galaxies. , 2023, , 1-64.		0
195	The ASTRAL database for neutron-capture nucleosynthesis studies. EPJ Web of Conferences, 2023, 279, 11011.	0.1	1
196	Constraining nucleosythesis in neutrino-driven winds using the impact of (<i>Î±</i>, xn) reaction rates. EPJ Web of Conferences, 2023, 279, 08002.	0.1	0
197	Nuclear physics in the Nâ‰ˆ126 region relevant for the <i>r</i> process. EPJ Web of Conferences, 2023, 279, 08001.	0.1	0
198	⁴⁰Ar proposed as probe of neutron-induced reactions in a high-density stellar-like plasma at the National Ignition Facility. EPJ Web of Conferences, 2023, 279, 13004.	0.1	0
199	Representation of s-process abundances for comparison to data from bulk meteorites. European Physical Journal A, 2023, 59, .	1.0	0
200	Cross-sectionÂmeasurement of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Kr</mml:mi><mml:mprescripts /><mml:none /><mml:mn>82</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>p</mml:mi><mml:mo>,</mml:mo><mml:mi>Î³</mml: /><mml:none /><mml:mn>83</mml:mn></mml:mmultiscripts></mml:mrow></mml:math> reaction in inverse kinematics. Physical Review C, 2023, 107, .	1.1	0
201	Anchor-based optimization of energy density functionals. Physical Review C, 2023, 107, .	1.1	3

#	Article	IF	Citations
202	Franz and his friends: 35-years of s-process studies by the Karlsruheâ€“Torino collaboration. European Physical Journal A, 2023, 59, .	1.0	0
203	Nuclear quests for the r-process. European Physical Journal A, 2023, 59, .	1.0	2
204	Discovery of New Isotope <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">U</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>241</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> and Systematic High-Precision Atomic Mass Measurements of Neutron-Rich Pa-Pu Nuclei Produced via Multinucleon Transfer Reactions. Physical Review Letters, 2023, 130, .	2.9	11
205	Photon strength functions, level densities, and isomeric ratio in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Er</mml:mi><mml:mprescripts /><mml:none /><mml:mn>168</mml:mn></mml:mmultiscripts></mml:math> from the radiative neutron capture measured at the DANCE facility. Physical Review C, 2023, 107, .	1.1	0
206	Many-body expansion for light nuclear systems. Physical Review C, 2023, 107, .	1.1	0
207	Synthesis of â€˜â€˜Lightâ€™â€™ Heavy Elements upon the Explosion of a Low-Mass Neutron Star. Physics of Atomic Nuclei, 2023, 86, 1-8.	0.1	2
208	Nuclear Reactions in Evolving Stars (and Their Theoretical Prediction). , 2023, , 1-56.		0
211	Cosmic Radioactivity and Galactic Chemical Evolution. , 2023, , 1-83.		0
220	Nuclear Reactions in Evolving Stars (and Their Theoretical Prediction). , 2023, , 1-56.		0
226	Experimental Nuclear Astrophysics. , 2023, , 1-45.		0
228	Slow Neutron-Capture Process in Evolved Stars. , 2023, , 1-35.		0
253	Precise mass measurements of radioactive nuclides for astrophysics. European Physical Journal A, 2023, 59, .	1.0	1
260	Model for Collective Vibration. , 2023, , 2143-2177.		0
261	Observations of R-Process Stars in the Milky Way and Dwarf Galaxies. , 2023, , 3941-4004.		0
262	Slow Neutron-Capture Process in Evolved Stars. , 2023, , 3537-3571.		0
263	Probing Nuclear Structure with Photon Beams. , 2023, , 1371-1414.		0
264	Nucleosynthesis in Jet-Driven and Jet-Associated Supernovae. , 2023, , 3877-3914.		0
265	Masses of Exotic Nuclei. , 2023, , 141-178.		0

#	Article	IF	Citations
266	R-Process Nucleosynthesis in Neutron Star Merger Ejecta and Nuclear Dependences. , 2023, , 3915-3940.		0
267	Dynamics and Equation of State Dependencies of Relevance for Nucleosynthesis in Supernovae and Neutron Star Mergers. , 2023, , 4005-4102.		0
268	Cosmic Radioactivity and Galactic Chemical Evolution. , 2023, , 3261-3343.		0
269	Neutrinos and Heavy Element Nucleosynthesis. , 2023, , 3735-3753.		0
270	Nuclear Reactions in Evolving Stars (and Their Theoretical Prediction). , 2023, , 3435-3490.		0
271	Lifetimes of Exotic Nuclei. , 2023, , 179-213.		0
272	Microscopic Theory of Nuclear Fission. , 2023, , 829-866.		0
273	Experimental Nuclear Astrophysics. , 2023, , 3491-3535.		0
274	Nuclear Isomers. , 2023, , 487-523.		0