

Tamás Szűcs

List of Publications by Year in descending order

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Version: 2024-02-01

126
papers

2,271
citations

159585

30
h-index

289244

40
g-index

129
all docs

129
docs citations

129
times ranked

1207
citing authors

#	ARTICLE	IF	CITATIONS
1	The baryon density of the Universe from an improved rate of deuterium burning. Nature, 2020, 587, 210-213. First Direct Measurement of the	27.8	101
2	H Improved Direct Measurement of the	7.8	95
3	Origin of meteoritic stardust unveiled by a revised proton-capture rate of ^{17}O . Nature Astronomy, 2017, 1, . Improved Direct Measurement of the	10.1	64
4	O Improved Direct Measurement of the		

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19	<p>ation of ^{130}Ba-induced reactions on ^{132}Ba and their importance for the synthesis of ^{132}Ba.</p> <p>Resonance strengths in the $^{17,18}\text{O}(p, \hat{\pm})^{14,15}\text{N}$ reactions and background suppression underground. European Physical Journal A, 2015, 51, 1.</p>	2.9	38
20	Approaching the Gamow Window with Stored Ions: Direct Measurement of $\text{Xe}^{124}(p, \hat{1}^3)$ in the ESR Storage Ring. Physical Review Letters, 2019, 122, 092701.	7.8	38
21	Resonance strengths in the $^{17,18}\text{O}(p, \hat{\pm})^{14,15}\text{N}$ reactions and background suppression underground. European Physical Journal A, 2015, 51, 1.	2.5	37
22	Big Bang ^6Li nucleosynthesis studied deep underground (LUNA collaboration). Astroparticle Physics, 2017, 89, 57-65.	4.3	37
23	Resonance strengths in the $^{17,18}\text{O}(p, \hat{\pm})^{14,15}\text{N}$ reactions and background suppression underground. European Physical Journal A, 2015, 51, 1.		

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37	<p>factor of the</p> <p>Cross section of $\langle \sigma \rangle$</p>	2.9	24
38	<p>around the</p>	2.9	24
39	<p>Direct measurements of low-energy resonance strengths of the $^{23}\text{Na}(p, \hat{1}^3)^{24}\text{Mg}$ reaction for astrophysics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 795, 122-128.</p>	4.1	23
40	<p>Improved astrophysical rate for the $^{18}\text{O}(p, \hat{1}^{\pm})^{15}\text{N}$ reaction by underground measurements. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 790, 237-242.</p>	4.1	22
41	<p>Setup commissioning for an improved measurement of the $\text{D}(p, \gamma)^3\text{He}$ cross section at Big Bang Nucleosynthesis energies. European Physical Journal A, 2020, 56, 1.</p>	2.5	22
42	<p>$\hat{1}^{\pm}$-induced reactions on ^{127}I</p>	2.9	21
43	<p>process. Physical Review C, 2012, 86, .</p>	1.6	21
44	<p>Astrophysical analysis of the measurement of $(\hat{1}^{\pm}, \hat{1}^3)$ and $(\hat{1}^{\pm}, n)$ cross sections of ^{169}Tm. Physical Review C, 2012, 86, .</p>	2.9	20
45	<p>Constraining big bang lithium production with recent solar neutrino data. Physical Review D, 2015, 91, .</p>	4.7	20
46	<p>$\hat{1}^{\pm}$-induced reactions on Sb isotopes relevant to the astrophysical $\hat{1}^3$ process. Physical Review C, 2018, 97, .</p>	2.9	20
47	<p>A new approach to monitor ^{13}C-targets degradation in situ for $^{13}\text{C}(\alpha, n)^{16}\text{O}$</p>	2.5	20
48	<p>Cross section and reaction rate of determined from thick target yield measurements. Nuclear Physics A, 2014, 922, 112-125.</p>	1.5	18
49	<p>Cross section of the reaction $^{18}\text{O}(p, \hat{1}^3)^{19}\text{F}$ at astrophysical energies: The 90 keV resonance and the direct capture component. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134900.</p>	4.1	18
50	<p>Direct study of the $\hat{1}^{\pm}$-nucleus optical potential at astrophysical energies using the $^{64}\text{Zn}(p, \hat{1}^{\pm})^{64}\text{Cu}$ reaction. Physical Review C, 2014, 90, .</p>	2.9	17
51	<p>$\hat{1}^{\pm}$-induced reactions on ^{64}Zn</p>	2.9	17
52	<p>scattering and ^{64}Zn $\hat{1}^{\pm}$-induced reaction cross sections of ^{64}Zn</p>	2.9	17
53	<p>Resonance triplet at $E_{\text{th}} = 4.5 \text{ MeV}$ in the $^{40}\text{Ca}(\hat{1}^{\pm}, \hat{1}^3)^{44}\text{Ti}$ reaction. Physical Review C, 2013, 88, .</p>	2.9	16
54	<p>Measurement of $(\langle \sigma \rangle_{\hat{1}^{\pm}}, \langle \sigma \rangle_n)$ reaction cross sections of erbium isotopes for testing astrophysical rate predictions. Journal of Physics G: Nuclear and Particle Physics, 2015, 42, 055103.</p>	3.6	16

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55	KADoNIS-p: The Astrophysical p-Process Database. Nuclear Data Sheets, 2014, 120, 191-193.	2.2	15
56	Indirect determination of the astrophysical S factor for the ${}^6\text{Li}(\text{Tl}, \text{e}^-){}^6\text{Tl}$ reaction. Nuclear Data Sheets, 2014, 120, 191-193.	2.9	15
57	Reaction ${}^6\text{Li}(\text{Tl}, \text{e}^-){}^6\text{Tl}$ -process reaction cross section. Nuclear Data Sheets, 2014, 120, 191-193.	2.9	14
58	Cross section of ${}^{\text{I}^{\pm}}$ -induced reactions on iridium isotopes obtained from thick target yield measurement for the astrophysical ${}^{\text{I}^{\pm}}$ process. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 776, 396-401.	4.1	14
59	Activation method combined with characteristic X-ray counting: A possibility to measure cross sections on heavy p-nuclei. Nuclear Physics A, 2011, 867, 52-65.	1.5	13
60	${}^{\text{I}^{\pm}}$ -induced reactions on ${}^{\text{In}}$: Cross section measurements and statistical model analysis. Physical Review C, 2018, 97, .	2.9	13
61	Effect of beam energy straggling on resonant yield in thin gas targets: The cases ${}^{22}\text{Ne}(p, \text{e}^-){}^{\text{I}^{\pm}}$ and ${}^{23}\text{Na}$ and ${}^{14}\text{N}(p, \text{e}^-){}^{\text{I}^{\pm}}$ and ${}^{15}\text{O}$. Europhysics Letters, 2018, 122, 52001.	2.0	13
62	Cross section and neutron angular distribution measurements of neutron scattering on natural iron. Physical Review C, 2019, 99, .	2.9	13
63	Background in ${}^{\text{I}^{\pm}}$ -ray detectors and carbon beam tests in the Felsenkeller shallow-underground accelerator laboratory. European Physical Journal A, 2019, 55, 1.	2.5	13
64	Low-energy resonances in the ${}^{\text{O}}$ reaction. Physical Review C, 2021, 104, .	2.9	13
65	Shallow-underground accelerator sites for nuclear astrophysics: Is the background low enough?. European Physical Journal A, 2012, 48, 1.	2.5	12
66	Cross section of ${}^{\text{I}^{\pm}}$ -induced reactions on ${}^{\text{Au}}$ at sub-Coulomb energies. Nuclear Data Sheets, 2014, 120, 191-193.	2.9	12
67	Astrophysical reaction rates of ${}^{\text{Li}}(\text{Tl}, \text{e}^-){}^{\text{Li}}$ reaction. Physical Review C, 2021, 104, .	2.9	12
68	${}^{\text{I}^{\pm}}$ -induced reactions for nuclei with ${}^{\text{I}^{\pm}}$: Cross section measurements and statistical model analysis. Physical Review C, 2018, 97, .	2.4	12
69	Resonance strengths in the ${}^{\text{N}}(p, \text{e}^-){}^{\text{O}}$ astrophysical key reaction measured with activation. Physical Review C, 2019, 100, .	2.9	11
70	The muon intensity in the Felsenkeller shallow underground laboratory. Astroparticle Physics, 2019, 112, 24-34.	4.3	11
71	Activation thick target yield measurement of ${}^{\text{Mo}}({}^{\text{I}^{\pm}}, n){}^{\text{Ru}}$ for studying the weak r -process nucleosynthesis. Physical Review C, 2021, 104, .	2.9	11
72	Precise half-life measurement of the 10 h isomer in ${}^{154}\text{Tb}$. Nuclear Physics A, 2009, 828, 1-8.	1.5	10

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73	Thin-window gas cell target for activation cross-section measurements relevant for nuclear astrophysics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 693, 220-225.	1.6	10
74	Neutron flux and spectrum in the Dresden Felsenkeller underground facility studied by moderated He	4.7	10
75	Activation cross section measurement of the $^{17}\text{O}(p,\gamma)^{18}\text{F}$	2.9	9
76	Alpha-induced reactions for the astrophysical p-process: The case of ¹⁵¹ Eu. Journal of Physics: Conference Series, 2010, 202, 012004.	0.4	7
77	Half-life measurement of ^{133m} Ce with γ -spectrometry. European Physical Journal A, 2011, 47, 1.	2.5	7
78	The KADoNiS databases - progress and future plans. Journal of Physics: Conference Series, 2012, 337, 012033.	0.4	7
79	Activation cross section measurement of the $^{15}\text{N}(p,\gamma)^{16}\text{O}$	1.5	6
80	Half-life measurement of ⁶⁶ Ga with. Applied Radiation and Isotopes, 2012, 70, 278-281.	1.5	6
81	The neutron transmission of natFe, ¹⁹⁷ Au and natW. European Physical Journal A, 2018, 54, 1.	2.5	6
82	The new Felsenkeller 5 MV underground accelerator. , 2019, , .		6
83	Comparison of two HPGe counting system used in activation studies for nuclear astrophysics. AIP Conference Proceedings, 2014, , .	0.4	5
84	The γ -ray angular distribution in fast neutron inelastic scattering from iron. European Physical Journal A, 2018, 54, 1.	2.5	5
85	Measurement of the $^{2}\text{H}(p,\gamma)^{3}\text{He}$	3.6	5
86	Measurement of the ⁹¹ Zr(p, γ) ^{92m} Nb cross section motivated by type Ia supernova nucleosynthesis. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 105202.	3.6	5
87	Cosmic-ray-induced background intercomparison with actively shielded HPGe detectors at underground locations. European Physical Journal A, 2015, 51, 1.	2.5	4
88	An ERC Starting Grant project on p-process nucleosynthesis concluded. Journal of Physics: Conference Series, 2016, 665, 012033.	0.4	4
89	High precision elastic \hat{I}_{\pm} scattering on the even-odd ¹¹⁵ In nucleus at low energies. Journal of Physics: Conference Series, 2016, 665, 012035.	0.4	3
90	Angular distribution measurement of gamma rays from inelastic neutron scattering on ⁵⁶ Fe at the nELBE time-of-flight facility. EPJ Web of Conferences, 2017, 146, 11040.	0.3	3

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91	Half-life measurement of ^{65}Ga with \hat{I}^3 -spectroscopy. Applied Radiation and Isotopes, 2019, 148, 87-90.	1.5	3
92	High precision half-life measurement of ^{125}Cs and ^{125}Xe with \hat{I}^3 -spectroscopy. Nuclear Physics A, 2019, 986, 213-222.	1.5	3
93	Activation measurement of α -induced cross sections for ^{197}Au : analysis in the statistical model and beyond. Journal of Physics: Conference Series, 2020, 1668, 012042.	0.4	3
94	High-precision $\langle \mathbb{1}^3 \rangle$ scattering at low energies and the rate of the $\langle \mathbb{1}^3 \rangle$ process. Physical Review C, 2012, 85, 014607.	2.9	2
95	Lifetime measurement of the 6.79 MeV state in ^{15}O with the AGATA demonstrator. , 2012, , .		2
96	Experimental study of $\langle \mathbb{1}^3 \rangle$ -induced reactions on ^{64}Zn for the astrophysical $\langle \mathbb{1}^3 \rangle$ -process. Journal of Physics: Conference Series, 2012, 337, 012009.	0.4	2
97	Cross-section measurements at astrophysically relevant energies: The LUNA experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 742, 258-260.	1.6	2
98	Determination of \hat{I}^3 -ray widths in ^{15}N using nuclear resonance fluorescence. Physical Review C, 2015, 92, .	2.9	2
99	S-Factor measurement of the $^{12}\text{C}(p, \hat{I}^3)^{13}\text{N}$ reaction in inverse kinematics. EPJ Web of Conferences, 2015, 93, 03012.	0.3	2
100	Alpha capture reaction cross section measurements on Sb isotopes by activation method. Journal of Physics: Conference Series, 2016, 665, 012042.	0.4	2
101	Study of $^{16}\text{O}(^{12}\text{C}, \hat{I}^3)^{20}\text{Ne}$ for the investigation of carbon-carbon fusion reaction via the Trojan Horse Method. Journal of Physics: Conference Series, 2016, 703, 012024.	0.4	2
102	$^3\text{He}(\hat{I}^3, \hat{I}^3)^7\text{Be}$ cross section in a wide energy range. EPJ Web of Conferences, 2017, 165, 01049.	0.3	2
103	Felsenkeller 5 MV underground accelerator: Towards the Holy Grail of Nuclear Astrophysics $^{12}\text{C}(\langle \mathbb{1}^3 \rangle, \hat{I}^3)^{13}\text{C}$. EPJ Web of Conferences, 2018, 178, 01008.	0.3	2
104	Opportunities for measurements of astrophysically relevant alpha-capture reaction rates at CRYRING@ESR. X-Ray Spectrometry, 2020, 49, 129-132.	1.4	2
105	Determination of luminosity for in-ring reactions: A new approach for the low-energy domain. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 982, 164367.	1.6	2
106	Towards in-beam $\langle \mathbb{1}^3 \rangle$, $\langle \mathbb{1}^3 \rangle$ cross section measurements for the astrophysical $\langle \mathbb{1}^3 \rangle$ -process. Journal of Physics: Conference Series, 2012, 337, 012063.	0.4	1
107	A possible underground accelerator in the Dresden Felsenkeller. Journal of Physics: Conference Series, 2012, 337, 012032.	0.4	1
108	Felsenkeller shallow-underground accelerator laboratory for nuclear astrophysics. EPJ Web of Conferences, 2015, 93, 03010.	0.3	1

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109	Cross section measurements for \hat{I}^3 -process studies using a LEPS detector. Journal of Physics: Conference Series, 2016, 665, 012041.	0.4	1
110	Proton and \hat{I}^\pm capture studies for nuclear astrophysics at GSI storage rings. Journal of Physics: Conference Series, 2017, 875, 092015.	0.4	1
111	Neutron transmission measurement for natural W at nELBE. EPJ Web of Conferences, 2017, 146, 11044.	0.3	1
112	Target characterizations for a $^{14}\text{N}(p,\hat{I}^3)^{15}\text{O}$ cross section measurement. EPJ Web of Conferences, 2017, 165, 01027.	0.3	1
113	Laboratory background of an escape-suppressed Clover \hat{I}^3 -ray detector overground, shallow underground, and deep underground. 2010.		0
114	Investigation of \hat{I}^\pm -induced reactions on ^{127}I for the astrophysical s -process. Phys. Rev. C 86 , 035801 (2012).	2.9	0
115	Lifetime measurement of the 6.79 MeV state in ^{15}O with the AGATA demonstrator. AIP Conference Proceedings, 2012, , .	0.4	0
116	Measurement of alpha-induced reaction cross sections on erbium isotopes for \hat{I}^3 process studies. , 2014, , .		0
117	Addendum to "Determination of \hat{I}^3 -ray widths in ^{15}N using nuclear resonance fluorescence". Physical Review C, 2015, 92, .	2.9	0
118	Half-life measurements of the ^{144}Pm isotope with \hat{I}^3 -spectroscopy. Journal of Physics: Conference Series, 2015, 590, 012039.	0.4	0
119	Determination of level widths in ^{15}N using nuclear resonance fluorescence. EPJ Web of Conferences, 2015, 93, 03013.	0.3	0
120	Program and status for the planned underground accelerator in the Dresden Felsenkeller. Journal of Physics: Conference Series, 2016, 665, 012030.	0.4	0
121	Investigation of Alpha-Induced Reactions on ^{107}Ag at Astrophysical Energies. Journal of Physics: Conference Series, 2016, 665, 012043.	0.4	0
122	Ultra-sensitive \hat{I}^3 -ray spectroscopy set-up for investigating primordial lithium problem. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 824, 617-619.	1.6	0
123	\hat{I}^\pm -induced reaction cross section measurements on ^{197}Au . EPJ Web of Conferences, 2017, 165, 01050.	0.3	0
124	Nuclear physics uncertainties of the astrophysical s -process studied through the $^{64}\text{Zn}(p,\hat{I}^\pm)^{61}\text{Cu}$ and $^{64}\text{Zn}(p,\hat{I}^3)^{65}\text{Ga}$ reactions. Journal of Physics: Conference Series, 2018, 940, 012005.	0.4	0
125	Towards a Total Cross Section Measurement of the $^{14}\text{N}(p,\hat{I}^3)^{15}\text{O}$ Reaction by Activation. , 2017, , .		0
126	$^{3}\text{He}(\hat{I}^\pm,\hat{I}^3)^{7}\text{Be}$ cross section measurement around ^{7}Be known energy levels. EPJ Web of Conferences, 2022, 260, 11002.	0.3	0