

M Heil

List of Publications by Year in descending order

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101
papers

2,885
citations

159585

30
h-index

182427

51
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101
all docs

101
docs citations

101
times ranked

1763
citing authors

#	ARTICLE	IF	CITATIONS
1	THE WEAK-PROCESS IN MASSIVE STARS AND ITS DEPENDENCE ON THE NEUTRON CAPTURE CROSS SECTIONS. <i>Astrophysical Journal</i> , 2010, 710, 1557-1577.	4.5	276
2	Measurement of the Dipole Polarizability of the Unstable Neutron-Rich Nucleus ^{68}Ni . <i>Physical Review Letters</i> , 2013, 111, 242503.	7.8	155
3	A detector for $(n, \hat{1}^3)$ cross-section measurements at a spallation neutron source. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 459, 229-246.	1.6	124
4	An optimized C6D6 detector for studies of resonance-dominated $(n, \hat{1}^3)$ cross-sections. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 496, 425-436.	1.6	117
5	New experimental validation of the pulse height weighting technique for capture cross-section measurements. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2004, 521, 454-467.	1.6	101
6	Storage ring at HIE-ISOLDE. <i>European Physical Journal: Special Topics</i> , 2012, 207, 1-117.	2.6	101
7	Beyond the neutron drip line: The unbound oxygen isotopes ^{25}O and ^{26}O . <i>Physical Review C</i> , 2012, 86, .	2.9	93
8	The data acquisition system of the neutron time-of-flight facility n_{TOF} at CERN. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 538, 692-702.	1.6	84
9	A low background neutron flux monitor for the n_{TOF} facility at CERN. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2004, 517, 389-398.	1.6	75
10	Stellar $(n, \hat{1}^3)$ Cross Section of $\text{Ni}62$. <i>Physical Review Letters</i> , 2005, 94, 092504.	7.8	72
11	Discovery of Highly Excited Long-Lived Isomers in Neutron-Rich Hafnium and Tantalum Isotopes through Direct Mass Measurements. <i>Physical Review Letters</i> , 2010, 105, 172501.	7.8	68
12	Neutron Capture Cross Section Measurement of $\text{Sm}151$ at the CERN Neutron Time of Flight Facility (n_{TOF}). <i>Physical Review Letters</i> , 2004, 93, 161103.	7.8	65
13	Stellar Neutron Capture on Promethium: Implications for the s -Process Neutron Density. <i>Astrophysical Journal</i> , 2003, 582, 1251-1262.	4.5	62
14	Neutron capture cross sections for the weak s -process in massive stars. <i>Physical Review C</i> , 2008, 77, .	2.9	61
15	Nuclear physics experiments with ion storage rings. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013, 317, 603-616.	1.4	60
16	Long-lived isomers in neutron-rich $Z=72$ nuclei. <i>Physical Review C</i> , 2012, 86, .	2.9	57
17	Neutron capture cross sections for the weak s -process in massive stars. <i>Physical Review C</i> , 2008, 77, .	7.8	52
18	PINO: a tool for simulating neutron spectra resulting from the $7\text{Li}(p, n)$ reaction. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 608, 139-143.	1.6	52

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19	<p> $C = \int_{-14}^{14} T_j \text{ETQq1} \text{rgBT} / \text{Overlock} \text{Tf} \text{50} \text{162} \text{Td} \text{d} \text{E}$ </p>	2.9	51
20	$\hat{\Gamma}_{\pm}$ - and neutron-induced reactions on ruthenium isotopes. Physical Review C, 2002, 66, .	2.9	47
21	Neutron capture cross section of Th232 measured at the n_TOF facility at CERN in the unresolved resonance region up to 1 MeV. Physical Review C, 2006, 73, .	2.9	41
22	Exclusive measurements of quasi-free proton scattering reactions in inverse and complete kinematics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 753, 204-210.	4.1	41
23	Neutron Capture on 180Tm: Clue for s-Process Origin of Nature's Rarest Isotope. Physical Review Letters, 2001, 87, 251102.	7.8	37
24	Measurement of the Sm151(n, $\hat{\Gamma}^3$) cross section from 0.6 eV to 1 MeV via the neutron time-of-flight technique at the CERN n_TOF facility. Physical Review C, 2006, 73, .	2.9	36
25	Stellar (n, $\hat{\Gamma}^3$) cross sections of Hf174 and radioactive Hf182. Physical Review C, 2007, 75, .	2.9	35
26	Status and outlook of the neutron time-of-flight facility n_TOF at CERN. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 925-929.	1.4	35
27	<p> $Ne = \int_{-15}^{15} T_j \text{ETQq1} \text{rgBT} / \text{Overlock} \text{Tf} \text{50} \text{162} \text{Td} \text{d} \text{E}$ </p>	7.8	35
28	Schottky mass measurements of heavy neutron-rich nuclides in the element range Z=70-82 at the GSI Experimental Storage Ring. Physical Review C, 2013, 88, .	2.9	32
29	Low-energy resonances in $^{14}\text{N}(\hat{\Gamma}_{\pm}, \hat{\Gamma}^3)^{18}\text{F}$ and their astrophysical implications. Physical Review C, 2000, 62, .	2.9	31
30	^{176}Lu and ^{176}Hf : A Sensitive Test of s-Process Temperature and Neutron Density in AGB Stars. Astrophysical Journal, 2008, 673, 434-444.	4.5	31
31	<p> $Ni = \int_{-62}^{62} T_j \text{ETQq1} \text{rgBT} / \text{Overlock} \text{Tf} \text{50} \text{162} \text{Td} \text{d} \text{E}$ </p>	2.9	31
32	Neutron capture cross section of ^{139}La . Physical Review C, 2003, 68, .	2.9	28
33	Quasistellar spectrum for neutron activation measurements at $kT=5\text{keV}$. Physical Review C, 2005, 71, .	2.9	27
34	<p> $s\text{-process components}$ </p>	2.9	27
35	Gamma spectroscopy using two Clover detectors in close geometry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 517, 230-239.	1.6	26
36	Measurement and resonance analysis of the ^{237}Np neutron capture cross section. Physical Review C, 2012, 85, .	2.9	26

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37	TheLa139(n, \hat{p}^3) cross section: Key for the onset of the s-process. Physical Review C, 2007, 75, .	2.9	24
38	Measurement of resolved resonances of $^{232}\text{Th}(n, \hat{p}^3)$ at the n_TOF facility at CERN. Physical Review C, 2012, 85, .	2.9	23
39	Measurement of the stellar cross sections for the reactions $^9\text{Be}(n, \hat{p}^3)^{10}\text{Be}$ and $^{13}\text{C}(n, \hat{p}^3)^{14}\text{C}$ via AMS. Journal of Physics G: Nuclear and Particle Physics, 2008, 35, 014018.	3.6	22
40	Opportunities for Nuclear Astrophysics at FRANZ. Publications of the Astronomical Society of Australia, 2009, 26, 255-258.	3.4	22
41	Monte Carlo simulation of the n_TOF Total Absorption Calorimeter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 671, 108-117.	1.6	21
42	NeuLAND: The high-resolution neutron time-of-flight spectrometer for R3B at FAIR. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1014, 165701.	1.6	19
43	Fe^{59}	7.8	18
44	Lanthanum: An s-process Indicator. Astrophysical Journal, 2006, 647, 685-691.	4.5	17
45	Zr^{96}	2.9	17
46	Stellar neutron capture cross sections of ^{20}Ne and ^{21}Ne . Physical Review C, 2014, 90, .	2.9	17
47	Stellar neutron capture on ^{180}Tm . II. Defining the s-process contribution to nature's rarest isotope. Physical Review C, 2004, 69, .	2.9	16
48	Stellar neutron capture on ^{180}Tm . I. Cross section measurement between 10 keV and 100 keV. Physical Review C, 2004, 69, .	2.9	15
49	Neutron capture measurements at a RIA-type facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 524, 215-226.	1.6	15
50	Thermonuclear reaction $^{30}\text{P}(p, \hat{p}^3)^{31}\text{Cl}$ studied via Coulomb breakup of ^{31}Cl . Physical Review C, 2014, 89, .	2.9	15
51	Stellar neutron capture rates of ^{14}C . Nuclear Physics A, 2005, 758, 787-790.	1.5	14
52	Neutron Capture Cross Sections for the Weak s-process. Publications of the Astronomical Society of Australia, 2009, 26, 243-249.	3.4	14
53	Neutron activation of natural zinc samples at ^{25}Zn . Physical Review C, 2012, 85, .	2.9	14
54	Neutron capture measurements on ^{171}Tm . Nuclear Physics A, 2003, 718, 478-480.	1.5	13

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55	Preparation of a ^{60}Fe target for nuclear astrophysics experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 613, 347-350.	1.6	12
56	Increased isomeric lifetime of hydrogen-like ^{192}Os . Physical Review C, 2015, 91, .	2.9	12
57	Prototyping and tests for an MRPC-based time-of-flight detector for 1GeV neutrons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 654, 79-87.	1.6	11
58	Technique for Resolving Low-lying Isomers in the Experimental Storage Ring (ESR) and the Occurrence of an Isomeric State in ^{192}Re . Journal of Physics: Conference Series, 2012, 381, 012058.	0.4	11
59	The s process in massive stars. Progress in Particle and Nuclear Physics, 2007, 59, 174-182.	14.4	10
60	Studies of continuum states in ^{16}Ne using three-body correlation techniques. European Physical Journal A, 2015, 51, 1.	2.5	10
61	Alpha and neutron induced reactions on ruthenium. Nuclear Physics A, 2001, 688, 427-429.	1.5	9
62	Simulations and developments of the Low Energy Neutron detector Array LENA. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 659, 411-418.	1.6	9
63	$^{13,14}\text{B}(n, \hat{p})$ via Coulomb Dissociation for Nucleosynthesis towards the r-Process. Nuclear Data Sheets, 2014, 120, 197-200.	2.2	9
64	Performance of timing resistive plate chambers with relativistic neutrons from 300 to 1500 MeV. Journal of Instrumentation, 2015, 10, C02034-C02034.	1.2	9
65	Nuclear astrophysics with radioactive ions at FAIR. Journal of Physics: Conference Series, 2016, 665, 012044.	0.4	9
66	Strong Neutron Pairing in core+4n Nuclei. Physical Review Letters, 2018, 120, 152504.	7.8	9
67	Structure of ^{13}Be studied in proton knockout from ^{14}Be . Physical Review Letters, 2018, 120, 152504.	2.9	9
68	Study of Photon Strength Function of Actinides: the Case of ^{235}U , ^{238}Np and ^{241}Pu . Journal of the Korean Physical Society, 2011, 59, 1510-1513.	0.7	9
69	An independent measurement of the $^{12}\text{C}(\hat{p}, \hat{p}^3)^{16}\text{O}$ cross section with the Karlsruhe ^4He BaF2 detector. Nuclear Physics A, 2005, 758, 415-418.	1.5	8
70	Nuclear physics for the Re/Os clock. Journal of Physics G: Nuclear and Particle Physics, 2008, 35, 014015.	3.6	8
71	Performance of timing Resistive Plate Chambers with protons from 200 to 800 MeV. Journal of Instrumentation, 2015, 10, C01043-C01043.	1.2	8
72	Spectroscopy of ^{61}Fe via the neutron transfer reaction ^{61}H . Physical Review Letters, 2018, 120, 152504.	2.9	8

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73	Measurement of the $^{151}\text{Sm}(n,\hat{f}^3)^{152}\text{Sm}$ cross section at n_TOF. Nuclear Physics A, 2005, 758, 533-536.	1.5	7
74	Neutron capture cross section measurements for nuclear astrophysics at CERN n_TOF. Nuclear Physics A, 2005, 758, 501-504.	1.5	7
75	Neutron reactions and nuclear cosmo-chronology. Progress in Particle and Nuclear Physics, 2007, 59, 165-173.	14.4	7
76	Neutron cross-sections for next generation reactors: New data from n_TOF. Applied Radiation and Isotopes, 2010, 68, 643-646.	1.5	7
77	Simulation and prototyping of 2m long resistive plate chambers for detection of fast neutrons and multi-neutron event identification. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 701, 86-92.	1.6	7
78	Stellar (n,\hat{f}^3) cross sections of Na23. Physical Review C, 2017, 95, .	2.9	7
79	Comparison of electromagnetic and nuclear dissociation of ^{17}Ne . Physical Review C, 2018, 97, .	1.3	7
80	Unveiling the two-proton halo character of ^{17}Ne : Exclusive measurement of quasi-free proton-knockout reactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 827, 136957.	4.1	6
81	DANCE Device for Measurement of (n,\hat{f}^3) Reactions on Radioactive Species. Journal of Nuclear Science and Technology, 2002, 39, 614-619.	1.3	5
82	Hyperdeformation and Clustering in the Actinide Region. Acta Physica Hungarica A Heavy Ion Physics, 2003, 18, 323-330.	0.4	5
83	A neutron source to measure stellar neutron capture cross sections at. Nuclear Physics A, 2005, 758, 529-532.	1.5	4
84	Measurement of neutron induced fission of ^{235}U , ^{233}U and ^{245}Cm with the FIC detector at the CERN n_TOF facility. , 2007, , .		4
85	Past, Present and Future of the n_TOF Facility at CERN. Journal of the Korean Physical Society, 2011, 59, 1620-1623.	0.7	4
86	Relationship between Hyperdeformation, Fission Resonances and Clustering in ^{233}Th . Acta Physica Hungarica A Heavy Ion Physics, 2003, 18, 331-332.	0.4	3
87	Stellar Neutron Capture on Neon Isotopes. AIP Conference Proceedings, 2005, , .	0.4	3
88	Prototyping a 2m \hat{A} – 0.5m MRPC-based neutron TOF-wall with steel converter plates. Journal of Instrumentation, 2012, 7, P11030-P11030.	1.2	3
89	Nuclear astrophysics at FRANZ. Journal of Physics: Conference Series, 2018, 940, 012024.	0.4	3
90	Improved Neutron Capture Cross Section Measurements with the n_TOF Total Absorption Calorimeter. Journal of the Korean Physical Society, 2011, 59, 1813-1816.	0.7	3

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91	Nucleosynthesis in TP-AGB stars and the production of ^{19}F . Nuclear Physics A, 2003, 718, 155-158.	1.5	2
92	Measurements of the $^{90,91,92,94,96}\text{Zr}(n, \hat{1}^3)$ cross-sections at n_TOF. Nuclear Physics A, 2005, 758, 573-576.	1.5	2
93	The $(n, \hat{1}^3)$ cross sections of the p-process nuclei ^{74}Se and ^{84}Sr at. Nuclear Physics A, 2005, 758, 513-516.	1.5	2
94	Neutron cross section measurements at n-TOF for ADS related studies. Journal of Physics: Conference Series, 2006, 41, 352-360.	0.4	2
95	Time-Scales of the s -Process: from Minutes to Ages. Publications of the Astronomical Society of Australia, 2009, 26, 209-216.	3.4	2
96	Stellar neutron capture cross sections of ^{41}K and ^{41}Sc . Nuclear Physics A, 2016, 93, .	2.9	2
97	Isotopic cross sections of fragmentation residues produced by light projectiles on carbon near C, 2016, 93, .	2.9	2
98	A compact Ge-BGO coincidence array for ultra-sensitive in-beam gamma spectroscopy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 737, 135-141.	1.6	1
99	Forthcoming $(n, \hat{1}^3)$ measurements on the Fe and Ni isotopes at CERN n_TOF. Journal of Physics: Conference Series, 2010, 202, 012026.	0.4	0
100	Astrophysics at n_TOF Facility at CERN. Journal of Physics: Conference Series, 2011, 312, 042024.	0.4	0
101	New experimental developments for s- and p-process research. Journal of Physics: Conference Series, 2012, 403, 012038.	0.4	0