

Vitaly Chepel

List of Publications by Year in descending order

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142

papers

3,276

citations

117625

34

h-index

175258

52

g-index

144

all docs

144

docs citations

144

times ranked

1824

citing authors

#	ARTICLE	IF	CITATIONS
1	Liquid noble gas detectors for low energy particle physics. <i>Journal of Instrumentation</i> , 2013, 8, R04001-R04001.	1.2	195
2	Results from the first science run of the ZEPLIN-III dark matter search experiment. <i>Physical Review D</i> , 2009, 80, .	4.7	147
3	WIMP-nucleon cross-section results from the second science run of ZEPLIN-III. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 709, 14-20.	4.1	124
4	First limits on WIMP nuclear recoil signals in ZEPLIN-II: A two-phase xenon detector for dark matter detection. <i>Astroparticle Physics</i> , 2007, 28, 287-302.	4.3	122
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	The ZEPLIN-III dark matter detector: Instrument design, manufacture and commissioning. <i>Astroparticle Physics</i> , 2007, 27, 46-60.	4.3	91
7	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
8	The n_TOF Total Absorption Calorimeter for neutron capture measurements at CERN. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 608, 424-433.	1.6	80
9	$\text{U}_{\text{mml:mi}} \text{ and } \text{Au}_{\text{mml:mi}}$	2.9	72
10	$\text{Au}_{\text{mml:mi}} \text{ and } \text{Au}_{\text{mml:mi}}$	2.9	68
11	Neutron Capture Cross Section Measurement of Sm151 at the CERN Neutron Time of Flight Facility (n_TOF). <i>Physical Review Letters</i> , 2004, 93, 161103.	7.8	65
12	$\text{Au}_{\text{mml:mi}} \text{ and } \text{Au}_{\text{mml:mi}}$	2.9	55
13	Resonance neutron-capture cross sections of stable magnesium isotopes and their astrophysical implications. <i>Physical Review C</i> , 2012, 85, .	2.9	55
14	Measurement of the n_TOF beam profile with a micromegas detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2004, 524, 102-114.	1.6	54
15	Perspectives for positron emission tomography with RPCs. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 508, 88-93.	1.6	50
16	Limits on the Spin-Dependent WIMP-Nucleon Cross Sections from the First Science Run of the ZEPLIN-III Experiment. <i>Physical Review Letters</i> , 2009, 103, 151302.	7.8	48
17	Position Reconstruction in a Dual Phase Xenon Scintillation Detector. <i>IEEE Transactions on Nuclear Science</i> , 2012, 59, 3286-3293.	2.0	47
18	New measurement of neutron capture resonances in Bi209. <i>Physical Review C</i> , 2006, 74, .	2.9	46

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19	Nuclear recoil scintillation and ionisation yields in liquid xenon from ZEPLIN-III data. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 705, 471-476.	4.1	45
20	Scintillation efficiency of liquid xenon for nuclear recoils with the energy down to 5keV. Astroparticle Physics, 2006, 26, 58-63.	4.3	44
21	Neutron capture cross section of Zr . Bottleneck in the process reaction flow. Physical Review C, 2006, 73, .	2.9	44
22	Measurement of the refractive index and attenuation length of liquid xenon for its scintillation light. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 516, 462-474.	1.6	43
23	Measurement of single electron emission in two-phase xenon. Astroparticle Physics, 2008, 30, 54-57.	4.3	43
24	Single electron emission in two-phase xenon with application to the detection of coherent neutrino-nucleus scattering. Journal of High Energy Physics, 2011, 2011, 1.	4.7	42
25	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
26	ANTS2 package: simulation and experimental data processing for Anger camera type detectors. Journal of Instrumentation, 2016, 11, P04022-P04022.	1.2	41
27	Limits on inelastic dark matter from ZEPLIN-III. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 692, 180-183.	4.1	40
28	The reaction up to 8 keV neutron energy. Physical Review C, 2013, 87, .	2.9	36
29	Measurement of the Sm151(n,γ) 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
30	cross sections of Os . Nuclear Instruments & Methods in Physics Research B, 2007, 261, 925-929.	2.9	36
31	nat. and Pb . Nuclear Instruments & Methods in Physics Research B, 2007, 261, 925-929.	2.9	36
32	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
33	Time-energy relation of the n_TOF neutron beam: energy standards revisited. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 532, 622-630.	1.6	34
34	Experimental study of the Zr . Nuclear Instruments & Methods in Physics Research B, 2007, 261, 925-929.	2.9	34
35	Reflectance of polytetrafluoroethylene for xenon scintillation light. Journal of Applied Physics, 2010, 107, 064902.	2.5	34
36	The reaction up to 8 keV neutron energy. Physical Review C, 2013, 87, .	2.9	33

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37	Resonance capture cross section of Pb207. Physical Review C, 2006, 74, .	2.9	32
38	Measurement of the neutron capture cross section of the only isotope Pb204 from 1 eV to 440 keV. Physical Review C, 2007, 75, .	2.9	32
39	Performance study of liquid xenon detector for PET. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 392, 427-432.	1.6	31
40	Measurement and simulation of the muon-induced neutron yield in lead. Astroparticle Physics, 2013, 47, 67-76.	4.3	31
41	Measurement of the radiative neutron capture cross section of Pb and its astrophysical implications. Physical Review C, 2007, 76, .	2.9	30
42	High-accuracy U233(n,f) cross-section measurement at the white-neutron source n_TOF from near-thermal to 1 MeV neutron energy. Physical Review C, 2009, 80, .	2.9	30
43	cross sections of Os . IEEE Transactions on Nuclear Science, 1999, 46, 1038-1044.	2.9	28
44	The liquid xenon detector for PET: recent results. IEEE Transactions on Nuclear Science, 1999, 46, 1038-1044.	2.0	26
45	Limits on spin-dependent WIMP-nucleon cross-sections from the first ZEPLIN-II data. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 653, 161-166.	4.1	26
46	Measurement and resonance analysis of the Np neutron capture cross section. Physical Review C, 2012, 85, .	2.9	26
47	Measurement and analysis of the Am neutron capture cross section at the n_TOF facility at CERN. Physical Review C, 2014, 90, .	2.9	26
48	Radioactivity backgrounds in ZEPLIN-III. Astroparticle Physics, 2012, 35, 495-502.	4.3	25
49	Study of bialkali photocathodes below room temperature in the UV/VUV region. IEEE Transactions on Nuclear Science, 1998, 45, 542-549.	2.0	24
50	The ZEPLIN-III dark matter detector: Performance study using an end-to-end simulation tool. Astroparticle Physics, 2006, 26, 140-153.	4.3	24
51	The La139(n,β^3) cross section: Key for the onset of the process. Physical Review C, 2007, 75, .	2.9	24
52	Neutron capture on Zr : Resonance parameters and Maxwellian-averaged cross sections. Physical Review C, 2011, 84, .	2.9	24
53	The ZEPLIN-III anti-coincidence veto detector. Astroparticle Physics, 2010, 34, 151-163.	4.3	23
54	Measurement of resolved resonances of $\text{Th}(n,\beta^3)$ at the n_TOF facility at CERN. Physical Review C, 2012, 85, .	2.9	23

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55	Study of large area avalanche photodiode for detecting liquid xenon scintillation. IEEE Transactions on Nuclear Science, 2000, 47, 1307-1310.	2.0	21
56	A survey of energy loss calculations for heavy ions between 1 and 100kev. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 580, 114-117.	1.6	21
57	Quenching factor for low-energy nuclear recoils in a plastic scintillator. Physical Review C, 2012, 85, .	2.9	21
58	Liquid Hole Multipliers: bubble-assisted electroluminescence in liquid xenon. Journal of Instrumentation, 2015, 10, P08015-P08015.	1.2	21
59	Direct observation of bubble-assisted electroluminescence in liquid xenon. Journal of Instrumentation, 2015, 10, P11002-P11002.	1.2	20
60	Performance of the veto detector incorporated into the ZEPLIN-III experiment. Astroparticle Physics, 2011, 35, 76-86.	4.3	19
61	Performance analysis based on a Monte Carlo simulation of a liquid xenon PET detector. IEEE Transactions on Nuclear Science, 1995, 42, 2298-2302. $\text{Zr}(\text{Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Td}$	2.0	18
62		2.9	17
63	R Low temperature performance of photomultiplier tubes illuminated in pulsed mode by visible and vacuum ultraviolet light. Review of Scientific Instruments, 1997, 68, 34-40.	1.3	15
64	Detection of scintillation light of liquid xenon with a LAAPD. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 488, 572-578.	1.6	15
65	New approach to the calculation of the refractive index of liquid and solid xenon. Journal of Chemical Physics, 2005, 123, 234508.	3.0	15
66	Neutron-induced fission cross-section of ^{233}U in the energy range $0.5 < \text{En} < 20$ MeV. European Physical Journal A, 2011, 47, 1.	2.5	15
67	Low-temperature performance of a large area avalanche photodiode. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 504, 53-57.	1.6	14
68	GEM operation in double-phase xenon. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 598, 126-129.	1.6	14
69	Measurement of the $^{236}\text{U}(\text{n},\text{f})$ cross section from 170 meV to 2 MeV at the CERNn_TOFFfacility. Physical Review C, 2011, 84, .	2.9	14
70	Neutron-induced fission cross section of ^{234}U measured at the CERN n_TOF facility. Physical Review C, 2014, 89, .	2.9	14
71	Neutron-induced fission cross section of ^{245}Cm : New results from data taken at the time-of-flight facility n_TOF. Physical Review C, 2012, 85, .	2.9	13
72	Two-dimensional readout in a liquid xenon ionisation chamber. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 477, 184-190.	1.6	11

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73	Liquid rare gas detectors: recent developments and applications. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2003, 10, 994-1005.	2.9	11
74	Performance of a chamber for studying the liquid xenon response to γ -rays and nuclear recoils. <i>IEEE Transactions on Nuclear Science</i> , 2005, 52, 2793-2800.	2.0	11
75	The measurement of the $^{206}\text{Pb}(n, \beta^+)$ cross section and stellar implications. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2008, 35, 014020.	3.6	11
76	A model of the reflection distribution in the vacuum ultra violet region. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 619, 59-62.	1.6	11
77	ZE3RA: the ZEPLIN-III Reduction and Analysis package. <i>Journal of Instrumentation</i> , 2011, 6, P11004-P11004.	1.2	11
78	Measurement of the neutron-induced fission cross-section of ^{243}Am relative to ^{235}U from 0.5 to 20 MeV. <i>European Physical Journal A</i> , 2011, 47, 1.	2.5	11
79	Iterative reconstruction of detector response of an Anger gamma camera. <i>Physics in Medicine and Biology</i> , 2015, 60, 4169-4184.	3.0	11
80	Neutron-induced fission cross section of Np in the keV to MeV range at the CERN n_TOF facility. <i>Physical Review C</i> , 2016, 93, .	2.9	11
81	Primary scintillation yield and ratio in liquid xenon. <i>Radiation Physics and Chemistry</i> , 2005, 74, 160-167.	2.8	9
82	Measuring the angular profile of the reflection of xenon scintillation light. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 580, 322-325.	1.6	9
83	Measurement of the neutron-induced fission cross-section of ^{241}Am at the time-of-flight facility n_TOF. <i>European Physical Journal A</i> , 2013, 49, 1.	2.5	9
84	Stability of tetraphenyl butadiene thin films in liquid xenon. <i>Thin Solid Films</i> , 2016, 600, 65-70.	1.8	9
85	Study of Photon Strength Function of Actinides: the Case of ^{235}U , ^{238}Np and ^{241}Pu . <i>Journal of the Korean Physical Society</i> , 2011, 59, 1510-1513.	0.7	9
86	Position reconstruction in a liquid xenon scintillation chamber for low-energy nuclear recoils and β^+ -rays. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 573, 48-52.	1.6	8
87	Nuclear physics for the Re/Os clock. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2008, 35, 014015.	3.6	8
88	Measurement of the $^{151}\text{Sm}(n, \beta^+)^{152}\text{Sm}$ cross section at n_TOF. <i>Nuclear Physics A</i> , 2005, 758, 533-536.	1.5	7
89	Neutron capture cross section measurements for nuclear astrophysics at CERN n_TOF. <i>Nuclear Physics A</i> , 2005, 758, 501-504.	1.5	7
90	Neutron reactions and nuclear cosmo-chronology. <i>Progress in Particle and Nuclear Physics</i> , 2007, 59, 165-173.	14.4	7

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91	Calibration of photomultiplier arrays. <i>Astroparticle Physics</i> , 2010, 33, 13-18.	4.3	7
92	Neutron cross-sections for next generation reactors: New data from n_TOF. <i>Applied Radiation and Isotopes</i> , 2010, 68, 643-646.	1.5	7
93	High accuracy $^{235}\text{U}(\text{n},\text{f})$ data in the resonance energy region. <i>EPJ Web of Conferences</i> , 2016, 111, 02003.	0.3	7
94	Iterative reconstruction of SiPM light response functions in a square-shaped compact gamma camera. <i>Physics in Medicine and Biology</i> , 2017, 62, 3619-3638.	3.0	7
95	Pulse shape analysis in the liquid xenon multiwire ionisation chamber for PET. <i>IEEE Transactions on Nuclear Science</i> , 1998, 45, 561-567.	2.0	6
96	Pulse processing for the PET liquid xenon multiwire ionisation chamber. <i>IEEE Transactions on Nuclear Science</i> , 2000, 47, 2119-2126.	2.0	6
97	Detectors for medical radioisotope imaging: demands and perspectives. <i>Radiation Physics and Chemistry</i> , 2004, 71, 683-692.	2.8	6
98	Operation of gas electron multipliers in pure xenon at low temperatures. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 580, 331-334.	1.6	6
99	Liquid-xenon β^3 -camera with ionisation readout. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 478, 435-439.	1.6	5
100	The ZEPLIN II dark matter detector: Data acquisition system and data reduction. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 587, 101-109.	1.6	5
101	Preliminary results on position reconstruction for ZEPLIN III. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 573, 200-203.	1.6	4
102	Performance data from the ZEPLIN-III second science run. <i>Journal of Instrumentation</i> , 2012, 7, C03044-C03044.	1.2	4
103	B-spline parameterization of spatial response in a monolithic scintillation camera. <i>Journal of Instrumentation</i> , 2016, 11, P09014-P09014.	1.2	4
104	Low temperature test of photomultiplier tubes. <i>Applied Radiation and Isotopes</i> , 1995, 46, 495-496.	1.5	3
105	Measurements at n_TOF of the Neutron Capture Cross Section of Minor Actinides Relevant to the Nuclear Waste Transmutation. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	3
106	Neutron Capture Cross Section Measurements at n_TOF of ^{237}Np , ^{240}Pu and ^{243}Am for the Transmutation of Nuclear Waste. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	3
107	Publisher's Note: Measurement of resolved resonances of ^{232}Th . xmlns:mml="http://www.w3.org/1998/Math/MathML" display="block">\text{Th}(\text{Th}) \frac{1}{2.9} \text{Tf}_{50} \text{Td}_{102} \text{Td}_{3}		
108	Fission Cross-section Measurements of ^{233}U , ^{245}Cm and $^{241,243}\text{Am}$ at CERN n_TOF Facility. <i>Journal of the Korean Physical Society</i> , 2011, 59, 1912-1915.	0.7	3

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109	Mini-strip ionization chamber for $\hat{\gamma}$ -ray imaging. IEEE Transactions on Nuclear Science, 2003, 50, 122-125.	2.0	2	
110	Measurements of the 90,91,92,94,96Zr(n, $\hat{\gamma}$) cross-sections at n_TOF. Nuclear Physics A, 2005, 758, 573-576.	1.5	2	
111	High-Resolution Study of ^{237}Np Fission Cross Section from 5 eV to 1 MeV. AIP Conference Proceedings, 2005, , .	0.4	2	
112	Neutron cross section measurements at n_TOF for ADS related studies. Journal of Physics: Conference Series, 2006, 41, 352-360.	0.4	2	
113	Measurements of high-energy neutron-induced fission of natPb and ^{209}Bi . EPJ Web of Conferences, 2010, 8, 07009.	0.3	2	
114	Neutron-induced fission cross section measurement of ^{233}U , ^{241}Am and ^{243}Am in the energy range 0.5 MeV \leq E \leq 20 MeV at n_TOF at CERN. Physica Scripta, 2012, T150, 014005.	2.5	2	
115	Neutron Capture Measurements on Minor Actinides at the n_TOF Facility at CERN: Past, Present and Future. Journal of the Korean Physical Society, 2011, 59, 1809-1812.	0.7	2	
116	$^{237}\text{Np}(n,f)$ Cross Section: New Data and Present Status. Journal of the Korean Physical Society, 2011, 59, 1908-1911.	0.7	2	
117	A cryogenic chamber for scattering measurements. Nuclear Instruments & Methods in Physics Research B, 1999, 152, 150-156.	1.4	1	
118	Neutron Capture Cross Sections for the Re/Os Clock. AIP Conference Proceedings, 2005, , .	0.4	1	
119	The ZEPLIN III Detector; Results from Surface Calibrations. Nuclear Physics, Section B, Proceedings Supplements, 2007, 173, 108-112.	0.4	1	
120	Reflection of the xenon scintillation light from Polytetrafluoroethylene (PTFE). , 2008, , .		1	
121	The $[^{237}\text{Np}(n,f)]$ cross section at the CERN n_TOF facility. , 2011, , .		1	
122	Position reconstruction in a dual phase xenon scintillation detector. , 2011, , .		1	
123	A low-mass neutron flux monitor for the n_TOF facility at CERN. Brazilian Journal of Physics, 2004, 34, 914-918.	1.4	1	
124	New Measurement of the Capture Cross Section of Bismuth and Lead Isotopes. AIP Conference Proceedings, 2005, , .	0.4	0	
125	Measurement of the ^{232}Th Neutron Capture Cross Section at the CERN n_TOF Facility. AIP Conference Proceedings, 2005, , .	0.4	0	
126	Measurement of Capture Cross Sections of 90,91,92,94,96Zr Isotopes at n_TOF. AIP Conference Proceedings, 2005, , .	0.4	0	

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127	Measurement of $^{139}\text{La}(n,\gamma)$ Cross Section. AIP Conference Proceedings, 2006, , .	0.4	0
128	Measurement of the resonance capture cross section of $^{204,206}\text{Pb}$ and termination of the s-process. AIP Conference Proceedings, 2006, , .	0.4	0
129	Editorial: Dielectric liquids. IEEE Transactions on Dielectrics and Electrical Insulation, 2006, 13, 455-455.	2.9	0
130	Measurement of $^{139}\text{La}(n,\gamma)$ Cross Section at n_TOF. AIP Conference Proceedings, 2006, , .	0.4	0
131	Measurements of neutron capture cross-sections at n_TOF. AIP Conference Proceedings, 2007, , .	0.4	0
132	Measurement of the Neutron Induced Fission Cross Section on Transuranic (TRU) Elements at the n \pm TOF Facility at CERN. AIP Conference Proceedings, 2007, , .	0.4	0
133	Recent Results at n \pm TOF and Future Perspectives. AIP Conference Proceedings, 2008, , .	0.4	0
134	n \pm TOF Experiment: Past, Present And Future. , 2009, , .		0
135	ZEPLIN-II limits on WIMP-nucelon interactions. , 2009, , .		0
136	Neutron Capture Measurements at the n \pm TOF Facility. , 2009, , .		0
137	Fission cross-section measurements on ^{233}U and minor actinides at the CERN n \pm TOF facility. , 2009, , .		0
138	ASTROPHYSICS AT n \pm TOF FACILITY. , 2010, , .		0
139	Study of Neutron-Induced Fission Cross Sections of U, Am, and Cm at n \pm TOF. , 2010, , .		0
140	Astrophysics at n_TOF Facility at CERN. Journal of Physics: Conference Series, 2011, 312, 042024.	0.4	0
141	A measurement of the muon-induced neutron yield in lead at a depth of 2850 m water equivalent. , 2013, , .		0
142	High-energy Neutron-induced Fission Cross Sections of Natural Lead and Bismuth-209. Journal of the Korean Physical Society, 2011, 59, 1904-1907.	0.7	0