Volker Sonnenschein

List of Publications by Year
in descending order

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83	1,062	361413	454955
papers	citations	20 h-index	30 g-index

85	85	85	903
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Hybrid Self-Seeded Ti:sapphire Laser with a Pumping Scheme Based on Spectral Beam Combination of Continuous Wave Diode and Pulsed DPSS Lasers. Applied Sciences (Switzerland), 2022, 12, 4727.	2.5	4
2	Total absorption <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> -ray spectroscopy of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> decays of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">Y</mml:mi><mml:mprescripts /><mml:none /><mml:mn>97</mml:mn></mml:mmultiscripts></mml:math>	2.9	5
3	Odd-parity autoionizing levels of uranium observed by two-color two-step photoionization optogalvanic spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 145003.	1.5	0
4	A direct diode pumped continuous-wave Ti:sapphire laser as seed of a pulsed amplifier for high-resolution resonance ionization spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 512-514.	1.4	4
5	Development of two-color resonant ionization sputtered neutral mass spectrometry and microarea imaging for Sr. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 044001.	1.2	3
6	Resonant sputtered neutral mass spectrometry using multiple reflections of laser to counterbalance Doppler broadening. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 034001.	1.2	0
7	Determination of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> -decay ground state feeding of nuclei of importance for reactor applications. Physical Review C, 2020, 102, .	2.9	6
8	An experimental setup for creating and imaging 4He2* excimer cluster tracers in superfluid helium-4 via neutron-3He absorption reaction. Review of Scientific Instruments, 2020, 91, 033318.	1.3	0
9	A direct diode pumped Ti:sapphire laser with single-frequency operation for high resolution spectroscopy. Hyperfine Interactions, 2020, 241, 1.	0.5	5
10	Mid-infrared cavity ring-down spectroscopy using DFB quantum cascade laser with optical feedback for radiocarbon detection. Japanese Journal of Applied Physics, 2020, 59, 092007.	1.5	9
11	Disentangling decaying isomers and searching for signatures of collective excitations in Î² decay. Journal of Physics: Conference Series, 2020, 1643, 012134.	0.4	1
12	Mass spectral database for TOF-SIMS of stable isotopes of Sr and Zr. Surface Science Spectra, 2020, 27, 025001.	1.3	0
13	Generation of ^{4} 4 He $$_2^*$$ 2 â^—. Journal of Low Temperature Physics, 2019, 196, 275-282.	1.4	2
14	Total absorption <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> -ray spectroscopy of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> -delayed neutron emitters <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">I</mml:mi><mml:mprescripts /><mml:none /><mml:mn>137</mml:mn></mml:mmultiscripts></mml:math>	2.9	8
15	Background Noise Reduction in Mid-Infrared Cavity Ring-Down Spectroscopy for Radiocarbon Analysis. , 2019, , .		2
16	Large Impact of the Decay of Niobium Isomers on the Reactor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mover accent="true"><mml:mi>Î½</mml:mi><mml:mo stretchy="false">Â¯</mml:mo></mml:mover><mml:mi>e</mml:mi></mml:msub></mml:math> Summation Calculations. Physical Review Letters, 2019, 122, 042502.	7.8	29
17	Total absorption Î³ -ray spectroscopy of niobium isomers. Physical Review C, 2019, 100, .	2.9	8
18	Conceptual study on parasitic low-energy RI beam production with in-flight separator BigRIPS and the first stopping examination for high-energy RI beams in the parasitic gas cell. Progress of Theoretical and Experimental Physics, 2019, 2019, .	6.6	1

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19	3.1â€“5.2 Î¼m Coherent MIR Frequency Comb Based on Yb-Doped Fiber Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-7.	2.9	6
20	The laser and optical system for the RIBF-PALIS experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 877, 118-123.	1.6	4
21	Isotope-selective Microscale Imaging of Radioactive Cs without Isobaric Interferences Using Sputtered Neutral Mass Spectrometry with Two-step Resonant Ionization Employing Newly-developed Ti:Sapphire Lasers. Analytical Sciences, 2018, 34, 1265-1270.	1.6	9
22	Characterization and performance of the DTAS detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 910, 79-89.	1.6	17
23	Yb-doped Fiber Laser Based Coherent Mid-Infrared Frequency Comb at Î» = 4.5 Î¼m for CRDS application. , 2018, , .		0
24	Towards in-jet resonance ionization spectroscopy: An injection-locked Titanium:Sapphire laser system for the PALIS-facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 908, 236-243.	1.6	2
25	Development of Analytical Method for ¹⁴C Determination in Biomedical Sample by Laser Spectroscopy. Radioisotopes, 2018, 67, 85-91.	0.2	3
26	A cavity ring-down spectrometer for study of biomedical radiocarbon-labeled samples. Journal of Applied Physics, 2018, 124, .	2.5	24
27	Development of a micro imaging system for element-selective analysis by coupling of focused ion beam and resonance ionization mass spectrometry. Progress in Nuclear Science and Technology, 2018, 5, 179-182.	0.3	3
28	Development of two-color resonance ionization scheme for Th using an automated wide-range tunable Ti:sapphire laser system. Progress in Nuclear Science and Technology, 2018, 5, 97-99.	0.3	6
29	Towards high-resolution laser ionization spectroscopy of the heaviest elements in supersonic gas jet expansion. Nature Communications, 2017, 8, 14520.	12.8	90
30	Efficient, high-resolution resonance laser ionization spectroscopy using weak transitions to long-lived excited states. Physical Review A, 2017, 95, .	2.5	32
31	Total absorption <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> -ray spectroscopy of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> -delayed neutron emitters <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Br</mml:mi><mml:mprescripts	2.9	35
32	Characterization of a cylindrical plastic Î²-detector with Monte Carlo simulations of optical photons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 854, 134-138.	1.6	2
33	High-resolution laser spectroscopy of long-lived plutonium isotopes. Physical Review A, 2017, 95, .	2.5	19
34	Characterization of a pulsed injection-locked Ti:sapphire laser and its application to high resolution resonance ionization spectroscopy of copper. Laser Physics, 2017, 27, 085701.	1.2	33
35	Total absorption spectroscopy study of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> decay of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">Br</mml:mi><mml:mprescripts /><mml:none /><mml:mn>86</mml:mn></mml:mmultiscripts></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal"	2.9	29
36	Experimental study of Tc100 Î² decay with total absorption Î³ -ray spectroscopy. Physical Review C, 2017, 96, .	2.9	15

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37	In-gas laser ionization and spectroscopy of actinium isotopes near the N=126 closed shell. Physical Review C, 2017, 96, .	2.9	27
38	Development of a saturated absorption spectroscopy setup at IGISOL for characterisation of Fabry-PÃ©rot interferometers. Hyperfine Interactions, 2017, 238, 1.	0.5	2
39	Optical feedback in dfb quantum cascade laser for mid-infrared cavity ring-down spectroscopy. Hyperfine Interactions, 2017, 238, 1.	0.5	7
40	Laser spectroscopy with an electrostatic ConeTrap. Hyperfine Interactions, 2017, 238, 1.	0.5	1
41	Total absorption spectroscopy of fission fragments relevant for reactor antineutrino spectra. EPJ Web of Conferences, 2017, 146, 10002.	0.3	2
42	Strong Î³-ray emission from neutron unbound states populated in Î²-decay: Impact on (n,Î³) cross-section estimates. EPJ Web of Conferences, 2017, 146, 01002.	0.3	2
43	TAGS measurements of 100Nb ground and isomeric states and 140Cs for neutrino physics with the new DTAS detector. EPJ Web of Conferences, 2017, 146, 10010.	0.3	2
44	Total absorption studies of high priority decays for reactor applications: 86Br and 91Rb. EPJ Web of Conferences, 2017, 146, 10001.	0.3	1
45	Study of the $eta $ Decay of Fission Products with the DTAS Detector. Acta Physica Polonica B, 2017, 48, 529.	0.8	5
46	r Process (n, (gamma)) Rate Constraints from the (gamma) Emission of Neutron Unbound States in (eta)-Decay. , 2017, , .		1
47	Highly coherent tunable mid-infrared frequency comb pumped by supercontinuum at 1 Âµm. Applied Physics Express, 2017, 10, 012503.	2.4	7
48	4.4-5.2 Î¼m Wavelength Tunable, Coherent MIR Frequency Comb Generation Based on Yb-doped Fiber Laser. , 2017, , .		0
49	Coherent Mid-Infrared Optical Frequency Comb Working at 4.52 Î¼m Based on Yb-doped Fiber Laser. , 2017, , .		0
50	Development of CO2 Cavity Ring-Down Spectroscopy for Medical Applications. , 2016, , .		2
51	First experiment with the NUSTAR/FAIR Decay Total Absorption <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" overflow="scroll"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math>-Ray Spectrometer (DTAS) at the IGISOL IV facility. Nuclear Instruments & Methods in Physics Research B, 2016, 376, 334-337.	1.4	21
52	Developments towards in-gas-jet laser spectroscopy studies of actinium isotopes at LISOL. Nuclear Instruments & Methods in Physics Research B, 2016, 376, 382-387.	1.4	20
53	Development of High Resolution Resonance Ionization Mass Spectrometry for Neutron Dosimetry Technique with93Nb(n,n')93mNb Reaction. EPJ Web of Conferences, 2016, 106, 05002.	0.3	2
54	In-gas-cell laser ionization studies of plutonium isotopes at IGISOL. Nuclear Instruments & Methods in Physics Research B, 2016, 376, 233-239.	1.4	8

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55	Enhanced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math>-Ray Emission from Neutron Unbound States Populated in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î²</mml:mi></mml:math>Decay. Physical Review Letters, 2015, 115, 062502.	7.8	37
56	An inductively heated hot cavity catcher laser ion source. Review of Scientific Instruments, 2015, 86, 123501.	1.3	3
57	Measuring independent yields of fission products using a penning trap. Bulletin of the Russian Academy of Sciences: Physics, 2015, 79, 869-871.	0.6	0
58	Intracavity Frequency Doubling and Difference Frequency Mixing for Pulsed ns Ti:Sapphire Laser Systems at On-Line Radioactive Ion Beam Facilities. , 2015, , .		11
59	Development of High Resolution Resonance Ionization Spectroscopy on Titanium Using Injection-Locked Ti:Sapphire Laser System. , 2015, , .		2
60	Isomeric Yield Ratios of Fission Products Measured with the JYFLTRAP. Acta Physica Polonica B, 2014, 45, 211.	0.8	1
61	Characterization of a dual-etalon Ti:sapphire laser via resonance ionization spectroscopy of stable copper isotopes. Hyperfine Interactions, 2014, 227, 113-123.	0.5	11
62	Coulomb displacement energies as a probe for nucleon pairing in thef7/2shell. Physical Review C, 2014, 89, .	2.9	6
63	Total Absorption Study of Beta Decays Relevant for Nuclear Applications and Nuclear Structure. Nuclear Data Sheets, 2014, 120, 12-15.	2.2	9
64	Laser spectroscopy at IGISOL IV. Hyperfine Interactions, 2014, 227, 139-145.	0.5	4
65	Isotope-selective laser photodetachment for 129I accelerator mass spectrometry. Hyperfine Interactions, 2013, 216, 133-138.	0.5	1
66	Recommissioning of JYFLTRAP at the new IGISOL-4 facility. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 506-509.	1.4	21
67	The FURIOS laser ion source at IGISOL-4. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 422-425.	1.4	4
68	Towards commissioning the new IGISOL-4 facility. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 208-213.	1.4	102
69	Isomeric states close to doubly magic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>132</mml:mn></mml:msup></mml:math>Sn studied with the double Penning trap JYFLTRAP. Physical Review C, 2013, 87, .	2.9	45
70	Control of RILIS lasers at IGISOL facilities using a compact atomic beam reference cell. Hyperfine Interactions, 2013, 216, 53-58.	0.5	4
71	Development of high resolution resonance ionization mass spectrometry for trace analysis of 93mNb. Hyperfine Interactions, 2013, 216, 41-46.	0.5	6
72	Development of resonance ionization in a supersonic gas-jet for studies of short-lived and long-lived radioactive nuclei. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 586-589.	1.4	4

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73	Precision Mass Measurements beyond<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Sn</mml:mi><mml:mprescripts /><mml:none /><mml:mn>132</mml:mn></mml:mmultiscripts></mml:math>: Anomalous Behavior of Odd-Even Staggering of Binding Energies. Physical Review Letters, 2012, 109, 032501.	7.8	74
74	Laser developments and resonance ionization spectroscopy at IGISOL. European Physical Journal A, 2012, 48, 1.	2.5	22
75	Determination of the ground-state hyperfine structure in neutral229Th. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 165005.	1.5	12
76	The search for the existence of 229mTh at IGISOL. European Physical Journal A, 2012, 48, 1.	2.5	30
77	Laser developments and resonance ionization spectroscopy at IGISOL. , 2012, , 295-309.		0
78	First Measurements with the BEta deLayEd Neutron Detector (BELEN-20) at JYFLTRAP. Journal of Physics: Conference Series, 2011, 312, 052008.	0.4	15
79	Resonance ionization spectroscopy of thorium isotopesâ€“towards a laser spectroscopic identification of the low-lying 7.6 eV isomer of²²⁹Th. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 165005.	1.5	32
80	Gas jet studies towards an optimization of the IGISOL LIST method. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 635, 24-34.	1.6	22
81	The Possibilities of the Extended IGISOL Facility at JYFL. Journal of the Korean Physical Society, 2011, 59, 1589-1592.	0.7	3
82	Production of negative osmium ions by laser desorption and ionization. Review of Scientific Instruments, 2010, 81, 013301.	1.3	5
83	High-precision mass measurement of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">S</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>31</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>with the double Penning trap JYFLTRAP improves the mass value for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mat	2.9	50