

Werner Scheid

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10719085/publications.pdf>

Version: 2024-02-01

123
papers

3,370
citations

136950

32
h-index

155660

55
g-index

123
all docs

123
docs citations

123
times ranked

945
citing authors

#	ARTICLE	IF	CITATIONS
1	Nuclear Shock Waves in Heavy-Ion Collisions. Physical Review Letters, 1974, 32, 741-745.	7.8	362
2	Theory of Charge Dispersion in Nuclear Fission. Physical Review Letters, 1975, 35, 353-356.	7.8	198
3	Quasimolecular Structure in Elastic $O^{16}+O^{16}$ Scattering. Physical Review Letters, 1970, 25, 176-180.	7.8	152
4	Possibility of Detecting Density Isomers in High-Density Nuclear Mach Shock Waves. Physical Review Letters, 1976, 36, 88-91.	7.8	147
5	Formation of superheavy nuclei in cold fusion reactions. Physical Review C, 2007, 76, .	2.9	124
6	Theoretical study of the synthesis of superheavy nuclei with $Z=119$ and 120 in heavy-ion reactions with trans-uranium targets. Physical Review C, 2012, 85, .	2.9	124
7	Ion-Ion Potentials and the Compressibility of Nuclear Matter. Physical Review Letters, 1968, 21, 1479-1482.	7.8	107
8	Quasimolecular nuclear optical potentials. Zeitschrift für Physik A, 1969, 226, 364-394.	0.9	106
9	Cluster decay of hot $^{56}\text{Ni}^*$ formed in the $^{32}\text{S}+^{24}\text{Mg}$ reaction. Physical Review C, 2003, 68, .	2.9	91
10	Emission of intermediate mass fragments from hot $^{116}\text{Ba}^*$ formed in low-energy $^{58}\text{Ni}+^{58}\text{Ni}$ reaction. Journal of Physics G: Nuclear and Particle Physics, 2003, 29, 2703-2719.	3.6	84
11	Modification of the Newton Method for the Inverse-Scattering Problem at Fixed Energy. Physical Review Letters, 1980, 44, 1299-1302.	7.8	72
12	Decay of excited $^{116}\text{Ba}^*$ formed in the $^{58}\text{Ni}+^{58}\text{Ni}$ reaction via the emission of intermediate mass fragments. Physical Review C, 2002, 65, .	2.9	65
13	Production of heavy and superheavy nuclei in massive fusion reactions. Nuclear Physics A, 2009, 816, 33-51.	1.5	62
14	Nonperturbative character of electron-positron pair production in relativistic heavy-ion collisions. Physical Review Letters, 1991, 66, 2613-2616.	7.8	60
15	Auger rates for dielectronic recombination cross sections with highly charged relativistic heavy ions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 148, 457-462.	2.1	57
16	Instabilities against exotic cluster decays in $\tilde{\text{stable}}^{\text{TM}}$ nuclei with Z and N in the neighborhood of spherical and deformed closed shells. Physical Review C, 1993, 47, 561-566.	2.9	53
17	Theory of nuclear excitation by electron capture for heavy ions. Physical Review A, 2006, 73, .	2.5	53
18	Signatures of molecular single-particle states by level crossings in heavy ion collisions. Physical Review C, 1980, 21, 958-962.	2.9	52

#	ARTICLE	IF	CITATIONS
19	Numerical Solution of the Time-Dependent Schrödinger Equation and Application to H+H. Physical Review Letters, 1979, 43, 512-515.	7.8	49
20	Fusion-fission reactions with a modified Woods-Saxon potential. Physical Review C, 2008, 77, .	2.9	48
21	APPEARANCE OF FAST-FISSION AND QUASI-FISSION IN REACTIONS WITH MASSIVE NUCLEI. Modern Physics Letters A, 2005, 20, 391-405.	1.2	47
22	Structural Configurations in an Extended Orbiting Cluster Model for Molecular Resonance States. International Journal of Modern Physics E, 1997, 06, 259-274.	1.0	46
23	The cluster-core model for the halo structure of light nuclei at the drip lines. Journal of Physics G: Nuclear and Particle Physics, 2002, 28, 699-712.	3.6	44
24	A NEW BARRIER PENETRATION FORMULA AND ITS APPLICATION TO \hat{I}_{\pm} -DECAY HALF-LIVES. International Journal of Modern Physics E, 2010, 19, 359-370.	1.0	42
25	Theory of ions emitted from a plasma by relativistic self-focusing of laser beams. Physical Review A, 1992, 45, 1278-1281.	2.5	40
26	On electron acceleration by plane transverse electromagnetic pulses in vacuum. Laser and Particle Beams, 1989, 7, 315-332.	1.0	39
27	Quasi-elastic scattering and fusion with a modified Woods-Saxon potential. Physical Review C, 2008, 78, .	2.9	38
28	Analytical calculation of relativistic self-focusing length in the WKB approximation. Journal of the Optical Society of America B: Optical Physics, 1988, 5, 2029.	2.1	37
29	Nonperturbative Treatment of Excitation and Ionization in U92++U91+Collisions at 1 GeV/amu. Physical Review Letters, 1986, 56, 2016-2019.	7.8	36
30	Density matrix for the damped harmonic oscillator within the Lindblad theory. Journal of Mathematical Physics, 1993, 34, 3887-3900.	1.1	35
31	Photo recombination on highly charged few-electron uranium ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 5259-5270.	1.5	35
32	Theory of projection of spurious center of mass and rotational states from many-body nuclear wave functions. Annals of Physics, 1968, 48, 493-525.	2.8	34
33	alpha-nucleus structure in fusion-fission and cluster decay modes of ^{56}Ni formed in heavy-ion reactions. Journal of Physics G: Nuclear and Particle Physics, 2000, 26, L45-L58.	3.6	31
34	The halo structure of neutron-drip line nuclei: (neutron) cluster-core model. Journal of Physics G: Nuclear and Particle Physics, 2000, 26, L23-L32.	3.6	30
35	Molecular particle-core model and its application to ^{13}C - ^{13}C scattering. Physical Review C, 1978, 18, 265-283.	2.9	28
36	Quasimolecular states in the ^{12}C - ^{12}C system. Physical Review C, 1977, 16, 2276-2290.	2.9	27

#	ARTICLE	IF	CITATIONS
37	Electron-positron pair creation with capture and ionization in relativistic heavy-ion collisions by the finite-difference method. <i>Physical Review A</i> , 1992, 46, 2607-2612.	2.5	27
38	Acceleration of electrons by intense laser pulses in vacuum. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994, 186, 189-192.	2.1	27
39	Solution of the time-dependent Schrödinger equation with a trajectory method and application to H+H scattering. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1982, 88, 33-36.	2.1	24
40	Quantum interference between nuclear excitation by electron capture and radiative recombination. <i>Physical Review A</i> , 2007, 75, .	2.5	24
41	Systematic study of fusion barriers. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2007, 34, 1935-1953.	3.6	22
42	Frictional forces for deep inelastic heavy ion collisions of deformed nuclei and application to ^{238}U on ^{238}U . <i>Nuclear Physics A</i> , 1987, 468, 59-92.	1.5	21
43	Effects of nonlocality in time of interactions of an atom with its surroundings on the broadening of spectral lines of atoms. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 306, 1-9.	2.1	21
44	Description of nuclear molecular resonances in $^{24}\text{Mg}+^{24}\text{Mg}$ with the two-center shell model and the neck degree of freedom. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1988, 202, 26-30.	4.1	20
45	Quasiprobability distributions for open quantum systems within the Lindblad theory. <i>Journal of Mathematical Physics</i> , 1991, 32, 2128-2134.	1.1	20
46	Theory of molecular collective excitation in the scattering of identical nuclei. <i>Nuclear Physics A</i> , 1979, 325, 283-304.	1.5	18
47	Heavy-ion potentials for ellipsoidally deformed nuclei and application to the system $^{238}\text{U} + ^{238}\text{U}$. <i>Nuclear Physics A</i> , 1982, 388, 381-401.	1.5	18
48	Inelastic excitation and neutron transfer in the ^{13}C scattering with the molecular particle-core model. <i>Physical Review C</i> , 1987, 36, 647-656.	2.9	18
49	Angular distribution of radiation emitted after resonant transfer and excitation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1998, 31, 4645-4654.	1.5	18
50	Theory of nucleon transfer in the dynamical two-center shell model. <i>Physical Review C</i> , 1979, 20, 188-200.	2.9	17
51	Molecular Interpretation of the Neutron Transfer in the Reaction $^{13}\text{C}(^{13}\text{C},^{12}\text{C})^{14}\text{C}$ within the Two-Center Shell Model. <i>Physical Review Letters</i> , 1983, 51, 366-369.	7.8	17
52	Molecular single-particle effects in the $^{12}\text{C}+^{17,18}\text{O}$ and $^{13}\text{C}+^{17}\text{O}$ reactions. <i>Physical Review C</i> , 1987, 36, 2341-2348.	2.9	17
53	Application of the modified Newton method to the inversion of elastic $^{12}\text{C}+^{12}\text{C}$ phases at $E_{\text{c.m.}} = 18.5$ MeV. <i>Nuclear Physics A</i> , 1987, 466, 157-167.	1.5	17
54	Acceleration of electrons and electromagnetic fields of highly intense laser pulses. <i>Laser and Particle Beams</i> , 2010, 28, 195-201.	1.0	17

#	ARTICLE	IF	CITATIONS
55	Two-center shell model for deformed and arbitrarily orientated nuclei. Physical Review C, 1987, 35, 2146-2155.	2.9	16
56	Calculations for electron transitions on a three-dimensional lattice in relativistic heavy-ion collisions. Physical Review A, 2004, 70, .	2.5	16
57	Dynamical nucleus-nucleus potential at short distances. Physical Review C, 2010, 81, .	2.9	16
58	Molecular single-particle excitations in heavy-ion reactions involving deformed light nuclei. Physical Review C, 1982, 25, 1902-1914.	2.9	15
59	Classical treatment of deep inelastic collisions between deformed nuclei and application to ^{238}U on ^{238}U . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 162, 265-268.	4.1	15
60	On the absence of an alpha-nucleus structure in a two-centre shell model. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, L47-L53.	3.6	15
61	Closed-shell effects from the stability and instability of nuclei against cluster decays in the mass regions $130 \leq A \leq 158$ and $180 \leq A \leq 198$. Physical Review C, 2003, 68, .	2.9	15
62	Potential barriers and Landau-Zener promotion in the inelastic excitation of ^{17}O by ^{13}C ions. Physical Review C, 1986, 33, 1674-1678.	2.9	13
63	$^{12}\text{C} + ^{12}\text{C}$ elastic scattering potentials obtained by unifying phase-shift analysis with the modified Newton-Sabatier inverse method. Physical Review C, 1994, 49, 2608-2617.	2.9	13
64	Coupled channel calculations for electron-positron pair production in collisions of heavy ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 1397-1407.	1.5	12
65	Nuclear molecular barrier resonances in the scattering of ^{28}Si on ^{28}Si studied by coupled channel calculations. Physical Review C, 1984, 29, 864-867.	2.9	11
66	Trajectory method for time-dependent Thomas-Fermi equations and application to Ar atoms in laser fields. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 134, 57-61.	2.1	10
67	Angular distribution and correlation of photons emitted during dielectronic recombination into hydrogen-like ions. Nuclear Instruments & Methods in Physics Research B, 2003, 205, 386-390.	1.4	10
68	Solution of the Cox-Thompson inverse scattering problem using finite set of phase shifts. Journal of Physics A, 2003, 36, 4815-4826.	1.6	10
69	Spurious rotational states in deformed nuclear shell models. Annals of Physics, 1972, 69, 375-399.	2.8	9
70	Cold fission versus exotic cluster decay in ^{234}U , ^{236}U , ^{238}U nuclei. Journal of Physics G: Nuclear and Particle Physics, 2000, 26, 1373-1388.	3.6	9
71	Lepton-pair production by bremsstrahlung in central relativistic heavy-ion collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 207, 366-370.	4.1	8
72	Semiclassical theory of sub-Coulomb neutron transfer in collisions of deformed heavy ions and its application to the $^{238}\text{U} + ^{238}\text{U}$ reaction. Physical Review C, 1988, 37, 1502-1510.	2.9	8

#	ARTICLE	IF	CITATIONS
73	Stability and instability of nuclei in the mass region $A=68-82$ based on exotic cluster decay studies. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1999, 25, 1089-1097.	3.6	8
74	Non-Markovian master equation for a system of Fermions interacting with an electromagnetic field. <i>Annals of Physics</i> , 2008, 323, 1168-1190.	2.8	8
75	Production of Superheavy Nuclei in Massive fusion reactions. <i>Nuclear Physics A</i> , 2010, 834, 353c-356c.	1.5	8
76	Neutron-halo nuclei in cold synthesis and cluster decay of heavy nuclei: $Z=104$ nucleus as an example. <i>Physical Review C</i> , 1995, 51, 2623-2629.	2.9	7
77	Dynamics of dinuclear system formation and its decay in heavy ion collisions. <i>Journal of Physics: Conference Series</i> , 2011, 282, 012010.	0.4	7
78	COLLECTIVE SPIN BY LINEARIZATION OF THE SCHRÖDINGER EQUATION FOR NUCLEAR COLLECTIVE MOTION. <i>Modern Physics Letters A</i> , 1988, 03, 859-866.	1.2	6
79	Molecular states in the equator-equator orientation of two oblately deformed C_{12} nuclei. <i>Physical Review C</i> , 1996, 53, 322-333.	2.9	6
80	The modified Newton-Sabatier method for the coupled channel inverse scattering problem with charged particles at fixed energy. <i>Journal of Mathematical Physics</i> , 1998, 39, 3061-3072.	1.1	6
81	COMPARISON OF THE FUSION-FISSION AND QUASIFISSION MECHANISMS IN HEAVY-ION COLLISIONS. <i>International Journal of Modern Physics E</i> , 2009, 18, 841-849.	1.0	6
82	A new treatment of the fermion doubling problem. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1999, 254, 337-340.	2.1	5
83	Classical dynamical polarization effects due to Coulomb potential between deformed nuclei. <i>Physical Review C</i> , 1987, 36, 1232-1234.	2.9	4
84	Coulomb and photo cross sections for nucleon emission by relativistic heavy ions and application to ^{40}Ar on ^{89}Y . <i>Nuclear Physics A</i> , 1989, 493, 583-596.	1.5	4
85	Coulomb and photo cross sections for nucleon emission from relativistic ^{16}O projectiles. <i>Nuclear Physics A</i> , 1990, 510, 817-826.	1.5	4
86	Reaction calculations for $^{17}\text{O}+^{12}\text{C}$ including fusion within the molecular particle-core model. <i>Physical Review C</i> , 1991, 43, 1480-1483.	2.9	4
87	LINEARIZED COLLECTIVE SCHRÖDINGER EQUATION WITH SPIN-DEPENDENT POTENTIALS FOR SPIN-3/2 NUCLEI AND APPLICATION TO $^{187,180,191}\text{Ir}$. <i>Modern Physics Letters A</i> , 1991, 06, 3653-3660.	1.2	4
88	Spin-dependent generalized collective model in relation to the $j=3/2$ interacting boson fermion model. <i>Physical Review C</i> , 1994, 50, 812-817.	2.9	4
89	Relating the probability distribution of a de Broglie wave to its phase velocity. <i>Science Bulletin</i> , 2012, 57, 1494-1498.	1.7	4
90	Theory of nuclear molecular states. <i>Lecture Notes in Physics</i> , 1982, , 337-357.	0.7	3

#	ARTICLE	IF	CITATIONS
91	Solution of the TDHF equation for atomic collisions by expanding the one-particle density matrix into gaussian matrices. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 126, 103-106.	2.1	3
92	COLLECTIVE SPIN FROM THE LINEARIZATION OF THE SCHRÖDINGER EQUATION IN MULTIDIMENSIONAL RIEMANNIAN SPACES USED IN COLLECTIVE NUCLEAR MODELS. International Journal of Modern Physics A, 1989, 04, 4961-4975.	1.5	3
93	Conceptual evaluation of a TeV electron acceleration for high luminosity using laser interaction in vacuum. AIP Conference Proceedings, 1994, , .	0.4	3
94	Superradiant dissipative tunneling in a double p ⁻ⁱ n semiconductor heterostructure with thermal injection of electrons. Physica A: Statistical Mechanics and Its Applications, 2007, 374, 203-210.	2.6	3
95	The inversion procedure for nuclear scattering problems from phase shifts at fixed angular momentum. Nuclear Physics A, 1988, 485, 173-180.	1.5	2
96	Cross sections for photons produced in the stopping phase in relativistic heavy-ion collisions. Nuclear Physics A, 1989, 504, 864-874.	1.5	2
97	Energy and angular distribution of ions emitted from a plasma after relativistic self-focusing of laser beams. Laser and Particle Beams, 1991, 9, 675-690.	1.0	2
98	Schematic model based on two-center shell model for neutron sub-Coulomb transfer in colliding deformed and oriented Mg ²⁴ nuclei. Physical Review C, 1991, 43, 2358-2366.	2.9	2
99	Coupled channel inverse scattering problem at fixed energy in Born approximation. Journal of Physics A, 2004, 37, 8721-8734.	1.6	2
100	Development of a Cox-Thompson inverse scattering method to charged particles. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 025101.	3.6	2
101	DISCUSSION OF QUANTUM INVERSE SCATTERING PROBLEMS FOR COUPLED CHANNELS AT FIXED ENERGY. International Journal of Modern Physics E, 2011, 20, 1765-1773.	1.0	2
102	Nuclear polarization effects due to classical dynamics of two colliding U ²³⁸ nuclei with frictional forces. Physical Review C, 1989, 40, 1653-1661.	2.9	1
103	The inverse scattering problem in nuclear heavy-ion physics at fixed angular momentum with bound states. Nuclear Physics A, 1989, 499, 200-208.	1.5	1
104	Linearized Schrödinger equation for nuclear quadrupole surface vibrations. Physical Review C, 1990, 42, 262-279.	2.9	1
105	EFFECT OF SHORT-RANGE NUCLEAR CORRELATIONS ON THE (³ p) CROSS SECTIONS FOR ²⁰⁸ Pb IN A PARTICLE-HOLE MODEL. International Journal of Modern Physics E, 2001, 10, 83-89.	1.0	1
106	Interatomic-potential inversion from ultracold Bose-gas collision. Nuclear Physics A, 2007, 790, 767c-770c.	1.5	1
107	Production mechanism of superheavy nuclei in massive fusion reactions. Nuclear Physics A, 2010, 834, 384c-387c.	1.5	1
108	Study of the Cox-Thompson inverse scattering method with a Coulomb potential. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 225302.	2.1	1

#	ARTICLE	IF	CITATIONS
109	Expansion of the TDHF-density matrix into gaussian phase-space densities and application to atomic collisions. Annals of Physics, 1991, 207, 267-281.	2.8	0
110	Non-perturbative coupled harmonic oscillators description of charge and mass correlations in fission yields of. Journal of Physics G: Nuclear and Particle Physics, 1998, 24, 2119-2132.	3.6	0
111	Super-asymmetric Cold Fission and Exotic Cluster-decay Processes. , 1999, , 804-826.		0
112	Neutron Drip-line Nuclei " Their Halo Structure, Synthesis, and Decay via Cluster Emissions. , 1999, , 1050-1073.		0
113	QUANTUM INVERSE SCATTERING PROBLEM FOR COUPLED CHANNELS. Modern Physics Letters B, 2008, 22, 2241-2256.	1.9	0
114	DISCUSSION OF THE CENTER OF MASS MOTION IN A SYSTEM WITH THREE DEGREES OF FREEDOM. International Journal of Modern Physics E, 2013, 22, 1350043.	1.0	0
115	Quantum inversion with elastic phase shifts to discrete different energies. International Journal of Modern Physics E, 2014, 23, 1450077.	1.0	0
116	A method for solving the quantum inverse scattering problem for coupled channels at fixed energy. International Journal of Modern Physics E, 2016, 25, 1650094.	1.0	0
117	Acceleration of Electrons by Lasers in Vacuum. , 1992, , 607-624.		0
118	Production of Electron-Positron Pairs in Atomic heavy Ion Collisions at Relativistic Energies. NATO ASI Series Series B: Physics, 1994, , 595-606.	0.2	0
119	Nuclear Molecular Phenomena in Heavy Ion Collisions. NATO ASI Series Series B: Physics, 1994, , 407-418.	0.2	0
120	Energy Dependence of the Inverted Scattering Potentials of the $^{12}\text{C} + ^{12}\text{C}$ System in the Range $E_{\text{cm}} = 8\text{--}12$ MeV. NATO ASI Series Series B: Physics, 1994, , 419-420.	0.2	0
121	Electron-Positron Pair Creation in Relativistic Atomic Heavy Ion Collisions. NATO ASI Series Series B: Physics, 1994, , 453-464.	0.2	0
122	Fixed-Energy Inversion of Polarisation-Corrected Electron-Atom Scattering Phase-Shifts into Effective Potentials. Lecture Notes in Physics, 1997, , 156-168.	0.7	0
123	The Inverse Scattering Problem for Coupled Channels with the Modified Newton-Sabatier Method. Lecture Notes in Physics, 1997, , 98-111.	0.7	0