

Pavel Alekseev

List of Publications by Year in descending order

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times ranked

805
citing authors

#	ARTICLE	IF	CITATIONS
1	Neutron Spectroscopy: Principles and Equipment. Crystallography Reports, 2022, 67, 18-35.	0.1	2
2	Cooperative and Local Features of the Spin Gap Formation in the Kondo Insulators YbB12 and CeFe2Al10. Journal of Surface Investigation, 2022, 16, 303-311.	0.1	0
3	Neutron Spectroscopy: The Initial Steps of Development in Our Country and Several Achievements. Crystallography Reports, 2021, 66, 179-187.	0.1	0
4	Evidence of Homogeneous Intermediate Valence Coexisting with the Long-Range Magnetic Order in EuCu2(Si, Ge)2. JETP Letters, 2021, 114, 528-535.	0.4	1
5	Magnetization of Crystalline and Amorphous Phases of R2Ti2O7 and R2Zr2O7 (R = Gd, Dy, Tb). Journal of Superconductivity and Novel Magnetism, 2020, 33, 2395-2404.	0.8	5
6	Magnetic susceptibility of pyrochlores R2Ti2O7: R ²⁺ =Gd, Dy, Tb. Journal of Magnetism and Magnetic Materials, 2020, 500, 166326.	1.0	3
7	Ab Initio Study of Lattice Dynamics of Dodecaborides ZrB12 and LuB12. Journal of Surface Investigation, 2020, 14, S19-S21.	0.1	0
8	Effect of Nd and Rh substitution on the spin dynamics of the Kondo-insulator CeFe2Al10. Physical Review B, 2020, 102, .	1.1	3
9	Dramatic impact of intermediate-valence impurity on induced magnetism in singlet ground state system PrNi. Journal of Magnetism and Magnetic Materials, 2020, 514, 167187.	1.0	2
10	Induced magnetism and magnetic hole in singlet ground state system PrNi. Journal of Magnetism and Magnetic Materials, 2019, 489, 165413.	1.0	7
11	Binary and Pseudobinary Invar Materials based on Intermediate Valence Compounds. Journal of Surface Investigation, 2019, 13, 1203-1208.	0.1	0
12	Analysis of anomalous negative magnetic contribution to thermal expansion in Sm0.80B6 and pseudobinary compounds Sm1-xLaxB6 (x=0, 0.10, 0.22, 0.50). Journal of Magnetism and Magnetic Materials, 2019, 470, 131-134.	1.0	1
13	Screened moments and extrinsic in-gap states in samarium hexaboride. Nature Communications, 2018, 9, 1539.	5.8	31
14	Intermediate-valence state of the Sm and Eu in SmB6 and EuCu2Si2: neutron spectroscopy data and analysis. Journal of Physics Condensed Matter, 2018, 30, 055801.	0.7	6
15	Neutron Spectroscopy of the Atomic Dynamics of La2Zr2O7 at Fluorite Pyrochlore Structural Transformations. JETP Letters, 2018, 108, 532-536.	0.4	3
16	Neutron spectroscopy and strongly correlated electrons: a view from the inside. Physics-Usppekhi, 2017, 60, 58-90.	0.8	6
17	Simple superatom model for lattice dynamics of dodecaborides RB12 (R=Zr, Yb, Lu). Journal of Alloys and Compounds, 2017, 726, 323-329.	2.8	2
18	Effect of defects in the rare-earth sublattice of the Kondo insulator YbB12 on its spectral characteristics and magnetic susceptibility. Journal of Experimental and Theoretical Physics, 2017, 124, 957-967.	0.2	1

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19	Peculiarities of FeSi phonon spectrum induced by a change of atomic volume. Journal of Experimental and Theoretical Physics, 2016, 123, 1073-1083.	0.2	4
20	Pressure-induced electronic phase transition in compound EuCu_2Ge_2 . Journal of Physics: Conference Series, 2016, 712, 012112.	0.3	7
21	Accelerated electrons as an alternative to natural fuel in aluminum production technologies. Theoretical Foundations of Chemical Engineering, 2016, 50, 52-58.	0.2	2
22	First evidence for a Sm^{3+} -type contribution to the magnetic form factor in the quasielastic spectral response of intermediate valence SmB_6 . JETP Letters, 2016, 103, 636-642.	0.4	4
23	Experimental observation of phonons as spectators in FeSi electronic gap formation. Physical Review B, 2016, 93, .	1.1	10
24	Analysis of the crystal lattice instability for cage-“cluster systems using the superatom model. Journal of Experimental and Theoretical Physics, 2016, 123, 452-460.	0.2	10
25	Europium mixed-valence, long-range magnetic order, and dynamic magnetic response in EuCu_2Ge_2 . Physical Review B, 2016, 94, .	0.2	10
26	Thermal evolution of magnetic-excitation spectrum of PrB_6 . Physics of Metals and Metallography, 2016, 117, 460-465.	0.3	3
27	Interaction Driven Subgap Spin Exciton in the Kondo Insulator SmB_6 . Physical Review Letters, 2015, 114, 036401.	2.9	83
28	High borides: determining the features and details of lattice dynamics from neutron spectroscopy. Physics-Uspexhi, 2015, 58, 330-344.	0.8	20
29	Dispersive magnetic-resonance mode in the Kondo semiconductor CeFeAl_{10} . Physical Review B, 2014, 89, .	1.1	16
30	Alternative technology for the decomposition of carbonates: Ecology, energy saving, and integrated processing of conversion products. Theoretical Foundations of Chemical Engineering, 2014, 48, 532-537.	0.2	2
31	Coexistence of long range magnetic order and intervalent state of Eu in $\text{EuCu}_2(\text{Si}_x\text{Ge}_{1-x})_2$: Evidence from neutron diffraction and spectroscopic studies. JETP Letters, 2014, 99, 164-168.	0.4	10
32	Phonons and the electronic gap in FeSi. Journal of Experimental and Theoretical Physics, 2014, 118, 242-252.	0.2	8
33	Possible undercompensation effect in the Kondo insulator $(\text{Yb,Tm})\text{B}_{12}$. Physical Review B, 2014, 89, .	1.1	14
34	Magnetism in quasibinary systems based on the valence-unstable compound CeNi . Journal of Surface Investigation, 2013, 7, 1163-1167.	0.1	3
35	Resonant Mode in Rare-earth based Strongly Correlated Semiconductors. Physics Procedia, 2013, 42, 18-24.	1.2	9
36	Magnetic excitations in $\text{EuCu}_2(\text{Si}_x\text{Ge}_{1-x})_2$: from mixed valence towards magnetism. Journal of Physics Condensed Matter, 2012, 24, 375601.	0.7	21

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37	Crystal electric field effects in Pr _{0.5} Sr _{0.5} CoO ₃ . Journal of Surface Investigation, 2012, 6, 553-558.	0.1	2
38	Influence of an electron doping on spin dynamics of YbB ₁₂ . Solid State Sciences, 2012, 14, 1584-1586.	1.5	3
39	Interplay of low-energy phonons and magnetic excitations in the Kondo insulator YbB ₁₂ . Journal of Physics Condensed Matter, 2012, 24, 205601.	0.7	7
40	Lattice dynamics in the itinerant helical magnet MnSi. Journal of Physics: Conference Series, 2011, 273, 012129.	0.3	2
41	Inelastic neutron scattering study of the lattice dynamics of LaCoO ₃ . Journal of Surface Investigation, 2011, 5, 1140-1143.	0.1	5
42	Magnetic dynamics in an electron-doped YbB ₁₂ conduction insulator. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 1149-1152.	0.1	0
43	Magnetic excitations in systems with a nonmagnetic ground state and valence fluctuations. Journal of Experimental and Theoretical Physics, 2010, 111, 285-291.	0.2	12
44	Specific features of the formation of the ground state in PrB ₆ . Physics of the Solid State, 2010, 52, 914-916.	0.2	8
45	Spin dynamics in Yb- and Sm-based systems with the nonmagnetic ground state. Physics of the Solid State, 2010, 52, 936-940.	0.2	7
46	Spin dynamics in the electron-doped Kondo insulator $\text{Yb}_2\text{B}_2\text{O}_7$. Physical Review B, 2010, 81, 114407.	1.1	12
47	Lattice dynamics in the itinerant helical magnet MnSi. Physical Review B, 2010, 81, 114407.	1.1	39
48	Lattice dynamics in the itinerant helical magnet MnSi. Physical Review B, 2010, 82, .	1.1	11
49	Magnetic and lattice excitations in intermediate-valence EuCu ₂ Si ₂ . Physica B: Condensed Matter, 2008, 403, 864-865.	1.3	4
50	Investigation of considerable stability increase of composite superconductors doped with extremely large heat capacity substances. Superconductor Science and Technology, 2007, 20, 71-76.	1.8	5
51	Temperature evolution of Pr-ion magnetic response in PrB ₆ . Journal of Alloys and Compounds, 2007, 442, 180-182.	2.8	3
52	Lattice dynamics and magneto-elastic coupling in Kondo-insulator YbB ₁₂ . Journal of Physics: Conference Series, 2007, 92, 012074.	0.3	10
53	Polarized-Neutron Study of Spin Dynamics in the Kondo Insulator YbB ₁₂ . Physical Review Letters, 2007, 99, 137204.	2.9	52
54	Magnetic correlations in heavy fermion CeAl ₃ compound. Solid State Communications, 2007, 141, 474-479.	0.9	2

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55	Dynamical magnetic correlations in the YbB12 kondo insulator: Neutron investigations with a polarization analysis. Crystallography Reports, 2007, 52, 387-392.	0.1	3
56	Evolution of the magnetic excitation spectra of the YbB12 kondo insulator under variations in temperature. Crystallography Reports, 2007, 52, 393-397.	0.1	0
57	Magnetic correlations in the CeAl3 heavy-fermion system. Crystallography Reports, 2007, 52, 398-402.	0.1	0
58	Vibrational spectra of the YbB12 Kondo insulator. Crystallography Reports, 2007, 52, 770-773.	0.1	6
59	Neutron studies of crystal-field effects in PrB6. Journal of Experimental and Theoretical Physics, 2007, 105, 12-13.	0.2	1
60	Spin dynamics of the intermediate-valence compound EuCu2Si2. Journal of Experimental and Theoretical Physics, 2007, 105, 14-17.	0.2	12
61	Low temperature features of the local structure of Sm1 \hat{a} ^x Y x S. Journal of Experimental and Theoretical Physics, 2007, 105, 99-104.	0.2	2
62	Considerable rise in the stability of combined superconductors doped by intermetallic compounds with an extremely high low-temperature specific heat. Technical Physics, 2007, 52, 1148-1154.	0.2	0
63	Stability Increase of NbTi Conductors With Additions of Extremely Large Specific Heat Substances. IEEE Transactions on Applied Superconductivity, 2006, 16, 1172-1175.	1.1	1
64	Relationship between the local electronic and local crystal structures of intermediate-valence Sm1 \hat{a} ^x Y x S. JETP Letters, 2006, 84, 119-123.	0.4	8
65	Influence of high heat capacity substances doping on quench currents of fast ramped superconducting oval windings. Cryogenics, 2006, 46, 252-255.	0.9	13
66	Magnetic excitations near induced phase transition in PrNi. Physica B: Condensed Matter, 2006, 378-380, 1085-1086.	1.3	6
67	Role of Ce \hat{e} –Ni interaction in CeNi ground state formation. Physica B: Condensed Matter, 2006, 378-380, 760-761.	1.3	3
68	Spin-gap magnetic response in (Yb, Lu)B12. Journal of Solid State Chemistry, 2006, 179, 2858-2861.	1.4	8
69	Microscopic nature of the extremely high specific heat of rare earth intermetallic compounds at low temperatures and the possibility of its application in technical superconductivity. Crystallography Reports, 2006, 51, S79-S84.	0.1	1
70	Paramagnons in the PrNi system with an induced magnetic moment. Crystallography Reports, 2006, 51, S85-S87.	0.1	2
71	Dynamics of boron nanoclusters in RB12 (R = Yb, Lu) systems. Crystallography Reports, 2006, 51, S139-S143.	0.1	3
72	Neutron scattering study of spin and lattice dynamics in. Physica B: Condensed Matter, 2006, 383, 16-19.	1.3	7

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73	Lattice dynamics in the Kondo insulator YbB12. Journal of Solid State Chemistry, 2006, 179, 2895-2899.	1.4	24
74	Magnetic spectral response and lattice properties in mixed-valence Sm _{1-x} Y _x solid solutions studied with x-ray diffraction, x-ray absorption spectroscopy, and inelastic neutron scattering. Physical Review B, 2006, 74, .	1.1	26
75	Effects of intermediate valence and Sm ²⁺ -Sm interactions on magnetic excitation spectra in (Sm,Y)S. Physica B: Condensed Matter, 2005, 359-361, 154-156.	1.3	0
76	Correlations between Ce unstable-valence ions in CeNi compound. Physica B: Condensed Matter, 2005, 359-361, 245-247.	1.3	6
77	Evidence for Short-Range Antiferromagnetic Fluctuations in Kondo-Insulating YbB12. Physical Review Letters, 2005, 94, .	2.9	55
78	Considerable Stability Increase in Superconducting Windings Doped With Extremely High Specific Heat Substances. IEEE Transactions on Applied Superconductivity, 2005, 15, 1629-1632.	1.1	2
79	Yb ²⁺ -Yb correlations and crystal-field effects in the Kondo insulator YbB12 and its solid solutions. Journal of Physics Condensed Matter, 2004, 16, 2631-2646.	0.7	31
80	Nature of the magnetic excitation spectrum in (Sm,Y)S: CEF effects or an exciton?. JETP Letters, 2004, 79, 81-84.	0.4	4
81	Influence of single-site and cooperative magnetic effects on phonons in CeNi-based compounds. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3174-3177.	0.8	5
82	Phonons in the Kondo insulator YbB12. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3093-3096.	0.8	7
83	Single ion anisotropy and soft-mode-driven magnetic ordering in PrNi. Physica B: Condensed Matter, 2004, 350, E83-E86.	1.3	6
84	Cooperative and local properties in the Kondo insulator YbB12. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 75-76.	1.0	1
85	Influence of the electron phase transition on the lattice dynamics of YbInCu4. Physica B: Condensed Matter, 2004, 350, E139-E141.	1.3	2
86	Experimental evidence of considerable stability increase in superconducting windings with extremely high specific heat substances. Cryogenics, 2004, 44, 763-766.	0.9	14
87	The thermodynamic properties and special features of spectra of elementary excitations of unstable valence Sm- and Ce-based compounds. Journal of Experimental and Theoretical Physics, 2003, 96, 1113-1121.	0.2	10
88	Collective magnetic excitations in mixed-valence Sm _{0.83} Y _{0.17} S. Physical Review B, 2002, 65, .	1.1	15
89	Soft-mode-driven magnetic ordering in the singlet ground-state system PrNi. Applied Physics A: Materials Science and Processing, 2002, 74, s589-s591.	1.1	5
90	Lattice anomalies in CeNi unstable valence compound. Applied Physics A: Materials Science and Processing, 2002, 74, s559-s561.	1.1	9

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91	Yb-Yb correlations and crystal field in the Kondo-insulator YbB ₁₂ . Applied Physics A: Materials Science and Processing, 2002, 74, s562-s564.	1.1	3
92	f-Electron excitations in the neutron spectra of mixed-valence Sm ^{1-x} Y _x S. Physica B: Condensed Matter, 2002, 312-313, 333-335.	1.3	5
93	New approach to the anomalies of thermodynamic properties of mixed valence compounds. Physica B: Condensed Matter, 2002, 312-313, 376-378.	1.3	1
94	Soft mode and magnetic phase transition in PrNi. JETP Letters, 2002, 76, 99-103.	0.4	10
95	The special features of the ground state in CeAl ₃ . JETP Letters, 2002, 76, 295-298.	0.4	4
96	Low-energy magnetic response and Yb valence in the Kondo insulator YbB ₁₂ . Physical Review B, 2001, 63, .	1.1	24
97	Simultaneous determination of the electronic and chemical structures in CeNi _x Cu _{5-x} at high pressures. Journal of Physics Condensed Matter, 2001, 13, 11511-11518.	0.7	2
98	Neutron scattering studies of intermediate-valence compounds. Physica B: Condensed Matter, 2000, 281-282, 34-41.	1.3	9
99	Temperature evolution of magnetic response for Ce-based heavy fermion compounds. Physica B: Condensed Matter, 2000, 276-278, 768-769.	1.3	0
100	Magnetic excitation spectrum of Kondo-insulator YbB ₁₂ . Physica B: Condensed Matter, 2000, 276-278, 770-771.	1.3	4
101	Magnetic excitations in single-crystal CeNi. Physica B: Condensed Matter, 2000, 276-278, 760-761.	1.3	1
102	Neutron scattering study of the magnetic excitation spectra in mixed-valence Sm _{1.5} Te ₄ . Journal of Physics Condensed Matter, 2000, 12, 2725-2736.	0.7	5
103	Dynamic magnetic response in intermediate-valence CeNi. Physical Review B, 2000, 61, 6189-6195.	1.1	23
104	Inelastic neutron scattering study of the Kondo semiconductor YbB ₁₂ . Physical Review B, 1999, 60, 13507-13514.	1.1	47
105	Anomalous phonon softening in intermediate-valence CeNi. Physica B: Condensed Matter, 1999, 259-261, 42-43.	1.3	7
106	Spin-orbit transitions in mixed-valence samarium compounds. Physica B: Condensed Matter, 1999, 259-261, 351-352.	1.3	6
107	Imperfection of the Sm sublattice and valence instability in compounds based on SmB ₆ . Journal of Experimental and Theoretical Physics, 1999, 88, 565-573.	0.2	13
108	Peculiarities of crystal field effects in CeInCu ₂ based heavy-fermion compounds. Journal of Experimental and Theoretical Physics, 1999, 88, 1202-1207.	0.2	0

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109	Influence of unstable valence of cerium ions on the crystal field in ReNi compounds. Journal of Experimental and Theoretical Physics, 1998, 86, 943-952.	0.2	8
110	Low energy excitations in CeNiSn. Journal of Magnetism and Magnetic Materials, 1998, 190, 245-250.	1.0	3
111	Anomalous lattice dynamics in intermediate-valence CeNi. Physical Review B, 1998, 57, R8099-R8102.	1.1	20
112	Dispersion of crystal field excitations in Nd ₂ CuO ₄ and Pr ₂ CuO ₄ . Physica B: Condensed Matter, 1997, 234-236, 717-718.	1.3	3
113	Crystal fields in the valence-unstable CeNi-based compounds. Physica B: Condensed Matter, 1997, 234-236, 864-866.	1.3	5
114	Intermultiplet transitions and crystal field in mixed valence Sm ₃ Te ₄ . Physica B: Condensed Matter, 1997, 234-236, 883-885.	1.3	9
115	Magnetic excitations and variation of valence in SmB ₆ -based systems. Physica B: Condensed Matter, 1997, 234-236, 880-882.	1.3	2
116	Influence of the Mixed-Valences State on the Magnetic Excitation Spectrum of SmB ₆ -Based Compounds. Journal of Solid State Chemistry, 1997, 133, 230-236.	1.4	17
117	Crystal field in valence-fluctuating CeNi-based compounds. JETP Letters, 1996, 63, 1000-1006.	0.4	5
118	Low-temperature effects in magnetic spectral response of CeAl ₃ -based systems. Physica B: Condensed Matter, 1996, 217, 241-251.	1.3	18
119	Magnetic excitation spectra and thermodynamics of amorphous PrNi ₅ . Physical Review B, 1996, 54, 3884-3894.	1.1	2
120	Evolution of Ce dynamic magnetic response in Ce _{1-x} La _x Ni compounds. Europhysics Letters, 1996, 33, 141-146.	0.7	23
121	Induced magnetic form factor of Sm in mixed-valence Sm _{1.1} B ₆ . Physica B: Condensed Matter, 1995, 206-207, 374-376.	1.3	8
122	Phonon anomalies in the intermediate-valence compound Ce _{0.9} Pr _{0.1} Ni ₅ . Solid State Communications, 1995, 94, 329-334.	0.9	4
123	Magnetic properties of amorphous PrNi ₅ . Journal of Magnetism and Magnetic Materials, 1995, 140-144, 861-862.	1.0	6
124	Magnetic excitation spectrum of mixed-valence SmB ₆ studied by neutron scattering on a single crystal. Journal of Physics Condensed Matter, 1995, 7, 289-305.	0.7	82
125	Neutron scattering studies of mixed-valence semiconductors. Physica B: Condensed Matter, 1995, 215, 99-109.	1.3	22
126	Local singlet bound state and magnetic excitations in mixed-valence SmB ₆ . Physica B: Condensed Matter, 1994, 199-200, 430-432.	1.3	15

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127	The origin of Sm ion intermediate valence state in SmB ₆ . Acta Physica Hungarica, 1994, 75, 221-225.	0.1	0
128	Lattice and magnetic excitations in SmB ₆ . Physica B: Condensed Matter, 1993, 186-188, 365-371.	1.3	18
129	Magnetic excitations in SmB ₆ single crystals. Physica B: Condensed Matter, 1993, 186-188, 384-386.	1.3	50
130	Neutron scattering and X-ray diffraction study of the valence-unstable system Ce _{1-x} La _x NiSn. Physica B: Condensed Matter, 1993, 186-188, 416-418.	1.3	3
131	Neutron Scattering Study of the Intermediate-Valent Ground State in SmB ₆ . Europhysics Letters, 1993, 23, 347-353.	0.7	39
132	Structural Relaxation and Amorphous-To-Crystal Transition: Change of Local Atomic Topology Studied by Neutron Inelastic Magnetic Scattering. Europhysics Letters, 1992, 18, 505-510.	0.7	4
133	Inelastic magnetic neutron scattering study of amorphous to crystal transition for PrNi ₅ . Physica B: Condensed Matter, 1992, 180-181, 167-169.	1.3	1
134	Temperature effects in phonon dispersion of SmB ₆ intermediate valence semiconductor. Physica B: Condensed Matter, 1992, 180-181, 281-283.	1.3	19
135	Magnetism in the CeCu ₅ Kondo system. Journal of Magnetism and Magnetic Materials, 1992, 110, 119-128.	1.0	4
136	Inelastic Neutron Magnetic Scattering from Amorphous and Polycrystalline PrNi ₅ . Europhysics Letters, 1991, 15, 29-35.	0.7	7
137	Gap formation in CeNiSn at low temperatures. Physica B: Condensed Matter, 1990, 163, 358-360.	1.3	32
138	Lattice Dynamics of Intermediate Valence Semiconductor SmB ₆ . Europhysics Letters, 1989, 10, 457-463.	0.7	75
139	Neutron spectroscopy of Pr ³⁺ impurity in the intermediate-valence compound CeNi ₅ . Journal of Magnetism and Magnetic Materials, 1988, 75, 323-329.	1.0	12
140	Influence of intermediate valence and Kondo effect on crystal electric field: Neutron spectroscopy of CeNi ₅ , CeCu ₅ , CeAl ₃ compounds with paramagnetic and magnetoactive impurities. Journal of Magnetism and Magnetic Materials, 1988, 76-77, 423-425.	1.0	13
141	Crystal field splitting in NdAl ₃ studied by inelastic neutron scattering. Physica Status Solidi (B): Basic Research, 1983, 119, 651-658.	0.7	13
142	Crystalline electric field effects in Pr(La, Y) Al ₃ . Physica Status Solidi (B): Basic Research, 1982, 114, 161-167.	0.7	18
143	Investigation of the Crystal Field in PrNi ₅ . Physica Status Solidi (B): Basic Research, 1980, 97, 87-94.	0.7	40
144	On the effects of the crystalline electric field in PrSn ₃ . Physica Status Solidi (B): Basic Research, 1978, 86, K59.	0.7	4