

Vasily R Shaginyan

List of Publications by Year in descending order

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152
papers

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citing authors

#	ARTICLE	IF	CITATIONS
1	Strongly Correlated Quantum Spin Liquids versus Heavy Fermion Metals: A Review. <i>Materials</i> , 2022, 15, 3901.	2.9	2
2	Peculiar Physics of Heavy-Fermion Metals: Theory versus Experiment. <i>Atoms</i> , 2022, 10, 67.	1.6	7
3	Theoretical and experimental developments in quantum spin liquid in geometrically frustrated magnets: a review. <i>Journal of Materials Science</i> , 2020, 55, 2257-2290.	3.7	18
4	Violation of the Time-Reversal and Particle-Hole Symmetries in Strongly Correlated Fermi Systems: A Review. <i>Symmetry</i> , 2020, 12, 1596.	2.2	5
5	On the target surface temperature during dc magnetron sputtering. <i>EPJ Applied Physics</i> , 2020, 92, 10801.	0.7	4
6	Flat Bands and Salient Experimental Features Supporting the Fermion Condensation Theory of Strongly Correlated Fermi Systems. <i>Physics of Atomic Nuclei</i> , 2020, 83, 132-142.	0.4	2
7	Universal T/B Scaling Behavior of Heavy Fermion Compounds (Brief Review). <i>JETP Letters</i> , 2020, 112, 657-665.	1.4	5
8	Violation of the Wiedemann-Franz Law in Strongly Correlated Electron Systems. <i>Springer Tracts in Modern Physics</i> , 2020, , 301-310.	0.1	0
9	Quantum Spin Liquid in Organic Insulators and He^3 . <i>Springer Tracts in Modern Physics</i> , 2020, , 179-191.	0.1	0
10	Quantum Spin Liquid in Geometrically Frustrated Magnets and the New State of Matter. <i>Springer Tracts in Modern Physics</i> , 2020, , 125-149.	0.1	0
11	Quantum Criticality, T-linear Resistivity, and Planckian Limit. <i>Springer Tracts in Modern Physics</i> , 2020, , 341-351.	0.1	0
12	Rearrangement of the Single-Particle Degrees of Freedom. <i>Springer Tracts in Modern Physics</i> , 2020, , 71-87.	0.1	0
13	One-Dimensional Quantum Spin Liquid. <i>Springer Tracts in Modern Physics</i> , 2020, , 151-163.	0.1	0
14	Density Functional Theory of Fermion Condensation. <i>Springer Tracts in Modern Physics</i> , 2020, , 31-48.	0.1	0
15	The Universal Behavior of the Archetypical Heavy-Fermion Metals YbRh_2Si_2 . <i>Springer Tracts in Modern Physics</i> , 2020, , 225-234.	0.1	0
16	Heavy-Fermion Compounds as the New State of Matter. <i>Springer Tracts in Modern Physics</i> , 2020, , 235-245.	0.1	1
17	Spin-Lattice Relaxation Rate and Optical Conductivity of Quantum Spin Liquid. <i>Springer Tracts in Modern Physics</i> , 2020, , 173-178.	0.1	0
18	Topological Fermion-Condensation Quantum Phase Transition. <i>Springer Tracts in Modern Physics</i> , 2020, , 49-69.	0.1	0

#	ARTICLE	IF	CITATIONS
19	Quasi-classical Physics Within Quantum Criticality in HF Compounds. Springer Tracts in Modern Physics, 2020, , 247-269.	0.1	0
20	Universal Behavior of the Thermopower of HF Compounds. Springer Tracts in Modern Physics, 2020, , 193-213.	0.1	0
21	Asymmetric Conductivity, Pseudogap and Violations of Time and Charge Symmetries. Springer Tracts in Modern Physics, 2020, , 289-299.	0.1	0
22	Dynamic Magnetic Susceptibility of Quantum Spin Liquid. Springer Tracts in Modern Physics, 2020, , 165-171.	0.1	0
23	Forming High- T_c Superconductors by the Topological FCQPT. Springer Tracts in Modern Physics, 2020, , 353-363.	0.1	0
24	Topological FCQPT in Strongly Correlated Fermi Systems. Springer Tracts in Modern Physics, 2020, , 89-114.	0.1	0
25	Universal Behavior of the Heavy-Fermion Metal YbAlB_4 . Springer Tracts in Modern Physics, 2020, , 215-224.	0.1	0
26	Fermion Condensation, T-Linear Resistivity, and Planckian Limit. JETP Letters, 2019, 110, 290-295.	1.4	13
27	Thermodynamic, Dynamic, and Transport Properties of Quantum Spin Liquid in Herbertsmithite from an Experimental and Theoretical Point of View. Condensed Matter, 2019, 4, 75.	1.8	5
28	Flat bands and strongly correlated Fermi systems. Physica Scripta, 2019, 94, 065801.	2.5	11
29	Experimental Manifestations of Fermion Condensation in Strongly Correlated Fermi Systems. Acta Physica Polonica A, 2019, 135, 1204-1214.	0.5	1
30	Universal Behavior of Quantum Spin Liquid and Optical Conductivity in the Insulator Herbertsmithite. Journal of Low Temperature Physics, 2018, 191, 4-13.	1.4	3
31	Asymmetric Tunneling Conductance and the Non-Fermi Liquid Behavior of Strongly Correlated Fermi Systems. JETP Letters, 2018, 108, 335-340.	1.4	5
32	New State of Matter: Heavy Fermion Systems, Quantum Spin Liquids, Quasicrystals, Cold Gases, and High-Temperature Superconductors. Journal of Low Temperature Physics, 2017, 189, 410-450.	1.4	17
33	The influence of topological phase transition on the superfluid density of overdoped copper oxides. Physical Chemistry Chemical Physics, 2017, 19, 21964-21969.	2.8	14
34	Conventional and Unconventional Pairing and Condensates in Dilute Nuclear Matter. Journal of Physics: Conference Series, 2016, 702, 012012.	0.4	7
35	Quasi-one-dimensional quantum spin liquid in the $\text{Cu}(\text{C}_4\text{H}_4\text{N}_2)(\text{NO}_3)_2$ insulator. JETP Letters, 2016, 103, 30-35.	1.4	6
36	Strongly correlated Fermi systems as a new state of matter. Frontiers of Physics, 2016, 11, 1.	5.0	6

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37	Topological basis for understanding the behavior of the heavy-fermion metal YbAlB_4 under application of magnetic field and pressure. <i>Physical Review B</i> , 2016, 93, .	3.2	12
38	Magnetic quantum criticality in quasi-one-dimensional Heisenberg antiferromagnet. <i>Annalen Der Physik</i> , 2016, 528, 483-492.	2.4	11
39	Scaling behavior of the thermopower of the archetypal heavy-fermion metal YbRh_2Si_2 . <i>Frontiers of Physics</i> , 2016, 11, 1.	5.0	2
40	Fate of the Wiedemann-Franz Law near Quantum Critical Points of Electron Systems in Solids. <i>JETP Letters</i> , 2015, 102, 826-833.	1.4	2
41	Heavy fermion spin liquid in herbertsmithite. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2015, 379, 2092-2096.	2.1	8
42	Occurrence of flat bands in strongly correlated Fermi systems and high- T_c superconductivity of electron-doped compounds. <i>JETP Letters</i> , 2015, 101, 413-418.	1.4	19
43	Quantum Criticality of Spin Liquids in Novel Insulators and Magnets. <i>Springer Series in Solid-state Sciences</i> , 2015, , 285-316.	0.3	0
44	Interaction-induced merging of Landau levels in an electron system of double quantum wells. <i>JETP Letters</i> , 2015, 102, 36-40.	1.4	6
45	Highly Correlated Fermi Liquid in Heavy-Fermion Metals: Magnetic Properties. <i>Springer Series in Solid-state Sciences</i> , 2015, , 111-138.	0.3	0
46	Zero Temperature Magnetoresistance of the HF Metal: Enigma of $\text{Sr}_3\text{Ru}_2\text{O}_7$. <i>Springer Series in Solid-state Sciences</i> , 2015, , 199-214.	0.3	0
47	Highly Correlated Fermi Liquid in Heavy-Fermion Metals: The Scaling Behavior. <i>Springer Series in Solid-state Sciences</i> , 2015, , 87-110.	0.3	0
48	Fermi Liquid with Fermion Condensate. <i>Springer Series in Solid-state Sciences</i> , 2015, , 31-50.	0.3	0
49	The Topological Phase Transitions Related to Fermion Condensate. <i>Springer Series in Solid-state Sciences</i> , 2015, , 51-60.	0.3	0
50	Magnetoresistance in the HF Metal at Zero Temperature. <i>Springer Series in Solid-state Sciences</i> , 2015, , 179-198.	0.3	0
51	Landau Fermi Liquid Theory and Beyond. <i>Springer Series in Solid-state Sciences</i> , 2015, , 21-29.	0.3	0
52	Violation of the Wiedemann-Franz Law in HF Metals. <i>Springer Series in Solid-state Sciences</i> , 2015, , 251-260.	0.3	0
53	Metals with a Strongly Correlated Electron Liquid. <i>Springer Series in Solid-state Sciences</i> , 2015, , 139-154.	0.3	0
54	Appearance of Fermion-Condensation Quantum Phase Transition in Fermi Systems. <i>Springer Series in Solid-state Sciences</i> , 2015, , 61-86.	0.3	0

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55	Baryon Asymmetry Resulting from FCQPT in the Early Universe. Springer Series in Solid-state Sciences, 2015, , 273-283.	0.3	0
56	High Magnetic Fields Thermodynamics of Heavy Fermion Metals. Springer Series in Solid-state Sciences, 2015, , 261-272.	0.3	0
57	Fermion condensate generates a new state of matter by making flat bands. Physics of Atomic Nuclei, 2014, 77, 1063-1078.	0.4	3
58	Merging of Landau Levels in a Strongly Interacting Two-Dimensional Electron System in Silicon. Physical Review Letters, 2014, 112, 186402.	7.8	24
59	General properties of phase diagrams of heavy-fermion metals. Europhysics Letters, 2014, 106, 37001.	2.0	17
60	Conventional BCS, unconventional BCS, and non-BCS hidden dineutron phases in neutron matter. Physics of Atomic Nuclei, 2014, 77, 1145-1156.	0.4	5
61	Common quantum phase transition in quasicrystals and heavy-fermion metals. Physical Review B, 2013, 87, .	3.2	41
62	Strongly correlated quantum spin liquid in herbertsmithite. Journal of Experimental and Theoretical Physics, 2013, 116, 848-853.	0.9	3
63	Fermion Condensate as a New State of Matter. Contributions To Plasma Physics, 2013, 53, 721-730.	1.1	8
64	Quasiclassical physics and T -linear resistivity in both strongly correlated and ordinary metals. Physical Review B, 2013, 88, .	3.2	21
65	Heat transport in magnetic fields by quantum spin liquid in the organic insulators $\text{EtMe}_3\text{Sb}[\text{Pd}(\text{dmit})_2]_2$ and $\text{I}^{\text{B}}\text{-(BEDT-TTF)}_2\text{Cu}_2(\text{CN})_3$. Europhysics Letters, 2013, 103, 67006.	2.0	11
66	Flat bands and enigma of metamagnetic quantum critical regime in $\text{Sr}_3\text{Ru}_2\text{O}_7$. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2800-2805.	2.1	6
67	Identification of strongly correlated spin liquid in herbertsmithite. Europhysics Letters, 2012, 97, 56001.	2.0	24
68	Magnetic field dependence of the residual resistivity of the heavy-fermion metal CeCoIn_5 . Physical Review B, 2012, 86, .	3.2	38
69	Scaling in dynamic susceptibility of herbertsmithite and heavy-fermion metals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2622-2626.	2.1	18
70	Nature of the quantum critical point as disclosed by extraordinary behavior of magnetotransport and the lorentz number in the heavy-fermion metal YbRh_2Si_2 . JETP Letters, 2012, 96, 397-404.	1.4	10
71	Baryon asymmetry resulting from a quantum phase transition in the early universe. Europhysics Letters, 2011, 94, 69001.	2.0	10
72	High-magnetic-fields thermodynamics of the heavy-fermion metal YbRh_2Si_2 . Europhysics Letters, 2011, 93, 17008.	2.0	16

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73	Quasiparticles of strongly correlated Fermi liquids at high temperatures and in high magnetic fields. Physics of Atomic Nuclei, 2011, 74, 1107-1124.	0.4	15
74	Comment on "Zeeman-Driven Lifshitz Transition: A Model for the Experimentally Observed Fermi-Surface Reconstruction in YbRh_2Si_2 ". Physical Review Letters, 2011, 107, 279701; author reply 279702.	7.8	2
75	Thermodynamic properties of the kagome lattice in herbertsmithite. Physical Review B, 2011, 84, .	3.2	38
76	Scaling behavior of heavy fermion metals. Physics Reports, 2010, 492, 31-109.	25.6	116
77	Behavior of the antiferromagnetic phase transition near the fermion condensation quantum phase transition in YbRh_2Si_2 . Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 659-664.	2.1	4
78	Second wind of the Dulong-Petit law at a quantum critical point. JETP Letters, 2010, 92, 532-536.	1.4	22
79	Quantum critical point in high-temperature superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 686-692.	2.1	5
80	Magnetic-field-induced reentrance of Fermi-liquid behavior and spin-lattice relaxation rates in. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3783-3786.	2.1	5
81	Energy scales and the non-Fermi liquid behavior in YbRh_2Si_2 . JETP Letters, 2009, 90, 47-54.	1.4	8
82	General properties of CePd quantum critical point. Physica B: Condensed Matter, 2009, 404, 3179-3182.	2.7	1
83	Energy scales and magnetoresistance at a quantum critical point. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 986-991.	2.1	10
84	Strongly correlated Fermi-systems: Non-Fermi liquid behavior, quasiparticle effective mass and their interplay. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2281-2286.	2.1	19
85	Quantum critical point in ferromagnet. Physica B: Condensed Matter, 2008, 403, 755-757.	2.7	2
86	Role of quasiparticles in universal low-temperature properties of. Physica B: Condensed Matter, 2008, 403, 739-741.	2.7	2
87	General properties of a magnetic-field-induced Landau Fermi liquid in high-temperature superconductors and heavy fermion metals. JETP Letters, 2008, 88, 183-188.	1.4	3
88	Universal Behavior of Two-Dimensional He_3 at Low Temperatures. Physical Review Letters, 2008, 100, 096406.	7.8	40
89	Asymmetrical tunneling in heavy fermion metals as a possible probe for their non-Fermi liquid peculiarities. Journal of Alloys and Compounds, 2007, 442, 29-33.	5.5	13
90	The peculiarities of the phase diagram of heavy fermion metal CeCoIn_5 . Journal of Alloys and Compounds, 2007, 442, 119-121.	5.5	1

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91	Title is missing!. Physics-Uspexhi, 2007, 50, 563.	2.2	40
92	Asymmetric tunneling, Andreev reflection and dynamic conductance spectra in strongly correlated metals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 361, 406-412.	2.1	27
93	Universal behavior of CePd _{1-x} Rh _x ferromagnet at the quantum critical point. JETP Letters, 2007, 85, 398-403.	1.4	2
94	Universal low-temperature behavior of the CePd _{1-x} Rh _x ferromagnet. Europhysics Letters, 2007, 79, 47001.	2.0	13
95	Evolution of film temperature during magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1083-1090.	2.1	29
96	Quasiparticles and quantum phase transition in universal low-temperature properties of heavy-fermion metals. Europhysics Letters, 2006, 76, 898-904.	2.0	30
97	Anomalously high surface temperature induced by condensation of atoms. JETP Letters, 2006, 83, 113-117.	1.4	1
98	Quasiparticles and order parameter near quantum phase transition in heavy fermion metals. Physica B: Condensed Matter, 2006, 378-380, 127-128.	2.7	0
99	Quasiparticles and order parameter near quantum phase transition in heavy fermion metals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 338, 393-401.	2.1	15
100	Heating of condensation surface during magnetron sputtering. European Physical Journal B, 2005, 46, 335-342.	1.5	6
101	Dissymmetrical tunneling in heavy-fermion metals. JETP Letters, 2005, 81, 222-225.	1.4	25
102	Hall coefficient in heavy fermion metals. JETP Letters, 2005, 82, 215-219.	1.4	4
103	“Superluminal” tunneling as a weak measurement effect. Physical Review A, 2005, 71, .	2.5	29
104	Universal behavior of heavy-fermion metals near a quantum critical point. JETP Letters, 2004, 79, 286-292.	1.4	39
105	Investigation of the field-tuned quantum critical point in CeCoIn ₅ . JETP Letters, 2004, 80, 263-266.	1.4	8
106	Two types of the effective mass divergence and the Gr ^{1/4} neisen ratio in heavy-fermion metals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 320, 459-464.	2.1	17
107	Fermion condensation quantum phase transition versus conventional quantum phase transitions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 329, 108-115.	2.1	9
108	On the relation between the Hartree-Fock and Kohn-Sham approaches. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 330, 10-15.	2.1	9

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109	Behavior of Fermi systems approaching the fermion condensation quantum phase transition from the disordered phase. JETP Letters, 2003, 77, 99-103.	1.4	27
110	Magneto-resistance of a highly correlated electron liquid. JETP Letters, 2003, 77, 178-181.	1.4	14
111	Quasiparticles in the superconducting state of high-T _c metals. JETP Letters, 2003, 77, 671-675.	1.4	2
112	From the Bose-Einstein to fermion condensation. Physics of Atomic Nuclei, 2003, 66, 1802-1819.	0.4	2
113	Magnetic field-induced Landau Fermi liquid in high-T _c metals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 315, 288-292.	2.1	6
114	Density Functional Theory versus the Hartree-Fock Method: Comparative Assessment. Physica Scripta, 2003, 68, C133-C140.	2.5	10
115	Description of Dynamic Properties of Finite Electron Systems in Density Functional Theory. Physica Scripta, 2003, 68, C10-C17.	2.5	1
116	Model of Strongly Correlated 2D Fermi Liquids Based on Fermion-Condensation Quantum Phase Transition. , 2003, , 259-277.		0
117	Fermion-condensation quantum phase transition in high temperature superconductors. Physica B: Condensed Matter, 2002, 312-313, 413-415.	2.7	8
118	Trapped atomic Fermi gases. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 293, 205-210.	2.1	6
119	Relationships between the superconducting gap, pseudogap and transition temperature in high-T _c superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 298, 193-198.	2.1	6
120	Transition from non-fermi liquid behavior to Landau-Fermi liquid behavior induced by magnetic fields. JETP Letters, 2002, 76, 532-536.	1.4	15
121	Possible universal cause of high-T _c superconductivity in different metals. JETP Letters, 2002, 76, 651-655.	1.4	5
122	Fermi-condensate quantum phase transition in high-T _c superconductors. JETP Letters, 2001, 73, 232-236.	1.4	10
123	Quasiparticles in a strongly correlated liquid with the fermion condensate: applications to high-temperature superconductors. Journal of Experimental and Theoretical Physics, 2001, 92, 287-296.	0.9	10
124	Coulomb energy of nuclei. Physics of Atomic Nuclei, 2001, 64, 471-476.	0.4	4
125	Theory of high-T _c superconductivity based on the fermion-condensation quantum phase transition. JETP Letters, 2001, 74, 396-400.	1.4	10
126	PROTON SINGLE PARTICLE ENERGY SHIFTS DUE TO COULOMB CORRELATIONS. International Journal of Modern Physics B, 2001, 15, 1572-1574.	2.0	0

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127	Comment on "Analysis of causality in time-dependent density-functional theory" Physical Review A, 2001, 63, .	2.5	8
128	Quasiparticle picture of high-temperature superconductors in the frame of a Fermi liquid with the fermion condensate. Physical Review B, 2001, 63, .	3.2	30
129	Calculations of single particle spectra in density functional theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 269, 337-342.	2.1	9
130	Quasiparticle dispersion and lineshape in a strongly correlated liquid with the fermion condensate. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 275, 124-130.	2.1	5
131	Neutron matter with a model interaction. European Physical Journal A, 2000, 8, 77-80.	2.5	3
132	PROTON SINGLE PARTICLE ENERGY SHIFTS DUE TO COULOMB CORRELATIONS. , 2000, , .		0
133	Proton single-particle energy shifts due to Coulomb correlations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 469, 1-6.	4.1	25
134	Reply to the comment by V. A. Khodel. JETP Letters, 1999, 69, 363-364.	1.4	1
135	Superconductivity in the presence of fermion condensation. JETP Letters, 1998, 68, 527-533.	1.4	10
136	Ground-state instability in systems of strongly interacting fermions. JETP Letters, 1998, 68, 942-949.	1.4	35
137	Density functional theory of fermion condensation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 249, 237-241.	2.1	28
138	Relations between action integral, response functions, and causality in density functional theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 250, 157-162.	2.1	8
139	Interplay between fermion condensation and density-wave instability. JETP Letters, 1997, 65, 253-258.	1.4	23
140	Critical experiments in the search for fermion condensation. JETP Letters, 1997, 65, 863-869.	1.4	27
141	A systematic surface contribution to the ground-state binding energies. Nuclear Physics A, 1996, 601, 103-116.	1.5	22
142	Quasiparticles in the theory of fermion condensation. JETP Letters, 1996, 63, 752-757.	1.4	21
143	Rearrangement of the electron Fermi surface in layered compounds. Solid State Communications, 1995, 96, 353-357.	1.9	32
144	New approach in the microscopic Fermi systems theory. Physics Reports, 1994, 249, 1-134.	25.6	148

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145	Fermion condensation in Fermi systems with strongly repulsive interaction. Nuclear Physics A, 1993, 555, 33-58.	1.5	6
146	Construction of the exact exchange potential of density-functional theory. Physical Review A, 1993, 47, 1507-1509.	2.5	23
147	Self-consistent description of finite multielectron systems: new approach. Journal De Physique II, 1993, 3, 449-463.	0.9	6
148	Construction of a local density effective interaction for finite many-electron systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, L345-L351.	1.5	9
149	New approach to microscopic theory of normal Fermi systems. Nuclear Physics A, 1989, 500, 242-276.	1.5	10
150	On the ground state of the interacting electron gas the density functional theory. Solid State Communications, 1985, 55, 9-12.	1.9	14
151	Ultra spin liquid in Lu(3)Cu(2)Sb(3)O(14). Europhysics Letters, 0, , .	2.0	1
152	Effect of superconductivity on the shape of Γ_7 bands. Europhysics Letters, 0, , .	2.0	2