Michael A Korotin

List of Publications by Year
in descending order

126	6,972	136740 32	56606 83
papers	citations	h-index	g-index

126	126	126	6961
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Density-functional theory and NiO photoemission spectra. Physical Review B, 1993, 48, 16929-16934.	1.1	1,991
2	Intermediate-spin state and properties ofLaCoO3. Physical Review B, 1996, 54, 5309-5316.	1.1	774
3	First-principles calculations of the electronic structure and spectra of strongly correlated systems: dynamical mean-field theory. Journal of Physics Condensed Matter, 1997, 9, 7359-7367.	0.7	535
4	CrO2: A Self-Doped Double Exchange Ferromagnet. Physical Review Letters, 1998, 80, 4305-4308.	2.9	425
5	Orbital-Assisted Metal-Insulator Transition inVO2. Physical Review Letters, 2005, 95, 196404.	2.9	335
6	Spin bags, polarons, and impurity potentials inLa2â^'xSrxCuO4from first principles. Physical Review Letters, 1992, 68, 345-348.	2.9	259
7	Charge and Orbital Order inFe3O4. Physical Review Letters, 2004, 93, 146404.	2.9	214
8	Magnetic state and electronic structure of theÎ´andÎ±phases of metallic Pu and its compounds. Physical Review B, 2005, 72, .	1.1	144
9	Electronic Structure of the Heavy Fermion MetalLiV2O4. Physical Review Letters, 1999, 83, 364-367.	2.9	109
10	Influence of rare-earth ion radii on the low-spin to intermediate-spin state transition in lanthanide cobaltite perovskites:â€ƒLaCoO3versusHoCoO3. Physical Review B, 2003, 68, .	1.1	107
11	Exchange Interactions and Magnetic Properties of the Layered VanadatesCaV2O5,MgV2O5,CaV3O7, andCaV4O9. Physical Review Letters, 1999, 83, 1387-1390.	2.9	94
12	Coulomb repulsion and correlation strength in LaFeAsO from density functional and dynamical mean-field theories. Journal of Physics Condensed Matter, 2009, 21, 075602.	0.7	93
13	Classification of the electronic correlation strength in the iron pnictides: The case of the parent compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>BaFe</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>As₂. Physical Review B, 2009, 80, .	1.1	82
14	Band-structure description of Mott insulators (NiO, MnO, FeO, CoO). Journal of Physics Condensed Matter, 1990, 2, 3973-3987.	0.7	81
15	Title is missing!. Journal of Physics Condensed Matter, 2000, 12, 4947-4958.	0.7	76
16	Orbital-selective formation of local moments in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-iron: First-principles route to an effective model. Physical Review B, 2010, 81, .	1.1	73
17	Pressure-Driven Metal-Insulator Transition in Hematite from Dynamical Mean-Field Theory. Physical Review Letters, 2009, 102, 146402.	2.9	70
18	Monoclinic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>M</mml:mi><mml:mn>1</mml:mn></mml:msub></mml:math>phase of VO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>: Mott-Hubbard versus band insulator. Physical Review B, 2012, 85, .	1.1	69

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19	Orbital and charge ordering inPr1â^'xCaxMnO3(x=0 and 0.5) from the ab initio calculations. Physical Review B, 1997, 55, 15494-15499.	1.1	55
20	First-Order Transition between a Small Gap Semiconductor and a Ferromagnetic Metal in the Isoelectronic AlloyFeSi1â^'xGex. Physical Review Letters, 2002, 89, 257203.	2.9	55
21	Orbital-selective pressure-driven metal to insulator transition in FeO from dynamical mean-field theory. Physical Review B, 2010, 82, .	1.1	51
22	Orbital ordering in paramagneticLaMnO3andKCuF3. Physical Review B, 2002, 65, .	1.1	49
23	Valence states of copper ions and electronic structure ofLiCu2O2. Physical Review B, 1998, 57, 4377-4381.	1.1	48
24	The role of transition metal impurities and oxygen vacancies in the formation of ferromagnetism in Co-doped TiO2. Journal of Physics Condensed Matter, 2006, 18, 1695-1704.	0.7	48
25	Computation of stripes in cuprates within theLDA+Umethod. Physical Review B, 2004, 70, .	1.1	44
26	Band approach to the excitation-energy dependence of x-ray fluorescence ofTiO2. Physical Review B, 1999, 60, 2212-2217.	1.1	42
27	Electronic structure and exchange interactions of the ladder vanadates CaV2O5and MgV2O5. Journal of Physics Condensed Matter, 2000, 12, 113-124.	0.7	39
28	Band versus localized electron magnetism in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CaCrO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml: Physical Review B, 2008, 78, .	1.1	38
29	First principles electronic model for high-temperature superconductivity. Physical Review B, 2002, 66, .	1.1	36
30	Electronic structure of niobium oxides. Journal of Alloys and Compounds, 2002, 347, 213-218.	2.8	35
31	Long-period orbital order with hole stripes inLa7/8Sr1/8MnO3. Physical Review B, 2000, 62, 5696-5699.	1.1	33
32	Vacant states of TiO2 with rutile structure and their reflection in different-type x-ray absorption spectra. X-Ray Spectrometry, 2002, 31, 414-418.	0.9	33
33	Spin and orbital ordering ofNd1â^'xSrxMnO3from LSDA+U calculations. Physical Review B, 1999, 59, 9903-9910.	1.1	32
34	SiC(0001):â€,â€,A surface Mott-Hubbard insulator. Physical Review B, 2000, 61, 1752-1755.	1.1	32
35	Coulomb correlation effects in LaFeAsO: An LDA + DMFT(QMC) study. Journal of Experimental and Theoretical Physics, 2009, 108, 121-125.	0.2	32
36	Electronic structure of nonstoichiometric compounds in the coherent potential approximation. JETP Letters, 2012, 94, 806-810.	0.4	32

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37	Density-functional calculation of the Coulomb repulsion and correlation strength in superconducting LaFeAsO. JETP Letters, 2008, 88, 729-733.	0.4	29
38	Influence of oxygen nonstoichiometry and doping with 2p-, 3p-, 6p- and 3d-elements on electronic structure, optical properties and photocatalytic activity of rutile and anatase: Ab initio approaches. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2015, 22, 58-83.	5.6	28
39	Role ofc-axis pairs inV2O3from the band-structure point of view. Physical Review B, 2003, 68, .	1.1	27
40	Contribution of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Fe</mml:mtext><mml:mtext>â€‰</mml:mtext><mml:mn>3</mml:mn><mml:mi>d</mml:m to the Fermi level of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CaFe</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:m Physical Review B, 2009, 80, .	1.1	27
41	X-ray emission and photoelectron spectra ofPr0.5Sr0.5MnO3. Physical Review B, 1999, 59, 12799-12806.	1.1	24
42	Atomistic simulations of helium dynamics in a plutonium lattice. Physical Review B, 2008, 77, .	1.1	23
43	Electronic structure and lattice relaxation related to Fe in MgO. Physical Review B, 1994, 49, 6548-6552.	1.1	22
44	Parameters of the effective singlet-triplet model for band structure of high-T c cuprates by alternative approaches. Journal of Experimental and Theoretical Physics, 2004, 99, 559-565.	0.2	20
45	Electronic structure and magnetic properties of two-dimensional nonstoichiometric rutile. Physica B: Condensed Matter, 2017, 526, 14-20.	1.3	17
46	Electronic structure and antiferromagnetism in CaCuO2 and Sr2CuO2Cl2. Materials Letters, 1990, 10, 28-33.	1.3	16
47	X-ray emission spectra and valence band structure of the 3d transition metal oxides. Physica B: Condensed Matter, 1991, 168, 163-169.	1.3	16
48	Calculation of temperature dependence of electrical resistivity in the transuranium metals and their alloys. Physical Review B, 2007, 76, .	1.1	16
49	The effect of oxygen non-stoichiometry and doping with vanadium on the nature of magnetism in titanium dioxide with the anatase structure. Physica B: Condensed Matter, 2010, 405, 2110-2117.	1.3	16
50	Local magnetic moments at X-ray spectra of 3d metals. Journal of Magnetism and Magnetic Materials, 2003, 256, 396-403.	1.0	14
51	The influence of the Co3+spin state on the optical properties of LaCoO3and HoCoO3. Journal of Physics Condensed Matter, 2004, 16, 5129-5136.	0.7	14
52	Mechanism of magnetic moment collapse under pressure in ferropericlase. Journal of Physics Condensed Matter, 2015, 27, 275501.	0.7	14
53	Magnetic properties of the Mn1.9 â˜ x Co x Ge compounds with a hexagonal crystal structure. Physics of Metals and Metallography, 2008, 106, 481-489.	0.3	13
54	Structural defects and electronic structure of N-ion implanted TiO 2 : Bulk versus thin film. Applied Surface Science, 2015, 355, 984-988.	3.1	13

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55	Orbital density functional as a means to restore the discontinuities in the total-energy derivative and the exchangeâ€“correlation potential. Journal of Physics Condensed Matter, 2007, 19, 106206.	0.7	12
56	Inclusion of effects of self-consistency of the electron density within the LDA + U + SO method implemented in the temperature Greenâ€™s function formalism in the basis of the Wannier functions. JETP Letters, 2015, 100, 823-828.	0.4	12
57	Coulomb correlation and magnetic ordering in double-layered manganites: LaSr2Mn2O7. Journal of Magnetism and Magnetic Materials, 2001, 237, 47-54.	1.0	11
58	Electronic structure of titanium monoxide with randomly distributed vacancies. JETP Letters, 2012, 95, 641-646.	0.4	11
59	First principles electronic structure calculation and simulation of the evolution of radiation defects in plutonium by the density functional theory and the molecular dynamics approach. Physics of Metals and Metallography, 2013, 114, 1087-1122.	0.3	11
60	Characterization of TiAlSiON coatings deposited by plasma enhanced magnetron sputtering: XRD, XPS, and DFT studies. Surface and Coatings Technology, 2015, 278, 87-91.	2.2	11
61	Magnetic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mrow><mml:mn>1</mml:mn> from CPA+DMFT perspectives. Physical Review B, 2016, 93, .	1.1	11
62	Antiferromagnetism and the band gap in d-metal oxides in the local spin density approximation: NiO and La2CuO4. Physica C: Superconductivity and Its Applications, 1989, 161, 59-65.	0.6	10
63	X-ray emission spectra and valence state of sulphur atoms of YBa2((CuO)1-x(NiS)x)3O4- delta. Journal of Physics Condensed Matter, 1995, 7, 213-218.	0.7	10
64	Electronic structure and magnetic state of transuranium metals under pressure. Journal of Physics Condensed Matter, 2010, 22, 495501.	0.7	10
65	Effect of doping by boron, carbon, and nitrogen atoms on the magnetic and photocatalytic properties of anatase. Physics of the Solid State, 2011, 53, 1353-1361.	0.2	10
66	Interfacial reactions in Al2O3/Cr2O3 layers: Electronic structure calculations and X-ray photoelectron spectra. Thin Solid Films, 2018, 665, 6-8.	0.8	10
67	Effect of proton uptake on the structure of energy levels in the band-gap of Sr-doped LaScO₃: diffuse reflectance spectroscopy and coherent potential approximation calculations. Physical Chemistry Chemical Physics, 2019, 21, 7989-7995.	1.3	10
68	Transition of iron ions from high-spin to low-spin state and pressure-induced insulator-metal transition in hematite Fe2O3. Journal of Experimental and Theoretical Physics, 2007, 105, 1035-1042.	0.2	9
69	The coherent potential approximation for strongly correlated systems: electronic structure and magnetic properties of NiOâ€“ZnO solid solutions. Journal of Physics Condensed Matter, 2014, 26, 115501.	0.7	9
70	Influence of the rare-earth site nonstoichiometry and Mn doping on the electronic structure of TbNi2. Journal of Magnetism and Magnetic Materials, 2016, 397, 115-119.	1.0	9
71	X-ray spectra and electronic structure of Li x NbO2 superconductor and other niobium oxide compounds. European Physical Journal B, 1994, 93, 417-424.	0.6	8
72	Investigation of the influence of nonstoichiometry and doping with carbon and nitrogen on the electronic spectrum of rutile by the coherent potential method. Physics of the Solid State, 2013, 55, 952-959.	0.2	8

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73	Electronic Structure of Aluminum Oxide with Oxygen Vacancies. Physics of Metals and Metallography, 2018, 119, 707-712.	0.3	8
74	The ground state of the antiferromagnetic semiconductor YBa2Cu3O6: electronic structure calculations and analysis of X-ray spectra. Materials Letters, 1990, 10, 34-38.	1.3	7
75	Electronic structure and properties of strontium ferrite Sr3Fe2O6. European Physical Journal B, 2006, 49, 425-431.	0.6	7
76	Ground state of BaCoS2 as a set of energy-degenerate orbital-ordered configurations of Co2+ ions. Physics of the Solid State, 2011, 53, 978-984.	0.2	7
77	Nature of the ferromagnetic ground state in the Mn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>molecular magnet. Physical Review B, 2014, 89, .	1.1	7
78	Mixed Substitution in Pâ€Doped Anatase TiO₂ Probed by XPS and DFT. Physica Status Solidi (B): Basic Research, 2018, 255, 1700477.	0.7	7
79	Computer simulations of defects in perovskite KNbO3crystals. Ferroelectrics, 1999, 229, 69-75.	0.3	6
80	Calculation of the electronic structure of the vanadium dioxide VO2 in the monoclinic low-temperature phase M 1 using the generalized transition state method. Physics of Metals and Metallography, 2007, 104, 215-220.	0.3	6
81	Electronic structure of rutile simultaneously doped with carbon and nitrogen atoms in the coherent potential approximation. Physics of the Solid State, 2013, 55, 26-30.	0.2	6
82	Phase stability of Î±-, Î³-, and Îµ-Ce: DFT+DMFT study. JETP Letters, 2015, 102, 616-619.	0.4	6
83	Pseudogap value in the energy spectrum of LaOFeAs: a fixed spin moment treatment. Journal of Experimental and Theoretical Physics, 2008, 107, 649-652.	0.2	5
84	Theoretical investigation of the residual electrical resistivity concentration dependence of transuranium metal alloys. Physical Review B, 2009, 80, .	1.1	5
85	Investigation of electronic structure and magnetic properties of CaCo_{1.86}As₂within the CPA method. Journal of Physics Condensed Matter, 2015, 27, 045502.	0.7	5
86	Genesis of the electronic spectrum and magnetic properties of a high-temperature phase of nonstoichiometric strontium ferrite SrFeO3â€“Î´ (0 â‰¤ Î´ â‰¤ 0.5). JETP Letters, 2016, 104, 269-274.	0.4	5
87	Electronic structure of UO2.12 calculated in the coherent potential approximation taking into account strong electron correlations and spin-orbit coupling. Physics of Metals and Metallography, 2016, 117, 655-664.	0.3	5
88	The appearance of Ti3+ states in solution-processed TiOx buffer layers in inverted organic photovoltaics. Applied Physics Letters, 2016, 109, .	1.5	5
89	Electronic properties of disordered perovskite-like ferrites: Coherent potential approach. Progress in Solid State Chemistry, 2020, 60, 100284.	3.9	5
90	Localized and band states in superconducting oxides: La2CuO4. Physica C: Superconductivity and Its Applications, 1989, 159, 412-416.	0.6	4

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91	Structural models of FeSex. Journal of Physics Condensed Matter, 2009, 21, 435702.	0.7	4
92	Computer simulation of the energy gap in ZnO- and TiO2-based semiconductor photocatalysts. Journal of Experimental and Theoretical Physics, 2012, 115, 1048-1054.	0.2	4
93	Coherent potential approximation simulation of the evolution of the electronic structure of titanium monoxide with the degree of vacancy ordering. Journal of Experimental and Theoretical Physics, 2014, 119, 761-765.	0.2	4
94	Electronic structure of the high-temperature cubic phase of SrFeO2.5. JETP Letters, 2015, 102, 307-311.	0.4	4
95	High-temperature transition in SrFeO2.5: LSDA+U simulation. European Physical Journal B, 2015, 88, 1.	0.6	4
96	Description of the magnetic properties of strongly correlated disordered solid solutions in the coherent potential approximation. Journal of Magnetism and Magnetic Materials, 2015, 383, 23-26.	1.0	4
97	The electronic structure and properties of Ni1âˆ’xLixO1âˆ’y (0â©½xâ©½1/4, 0â©½yâ©½1/8). Solid State Sciences, 2004, 6, 1139-1148.	1.5	3
98	Effect of alloying with iron on the electronic properties adnd structure of the Cu3Pd alloy. Physics of Metals and Metallography, 2010, 109, 337-346.	0.3	3
99	Description of the pressure-induced insulator-metal transition in BaCoS2 within the LDA + DMFT approach. Physics of the Solid State, 2012, 54, 1864-1869.	0.2	3
100	The influence of defects on magnetic properties of fcc-Pu. Journal of Experimental and Theoretical Physics, 2013, 117, 691-698.	0.2	3
101	Electronic structure of alumina doped by light elements. Computational Condensed Matter, 2018, 15, 48-54.	0.9	3
102	Magnetic State of Iron Impurity Ions in In2O3. JETP Letters, 2018, 108, 537-542.	0.4	3
103	CPA simulation of electronic properties of La1-xSrxFeO3-x/2 at high-temperature. Solid State Communications, 2018, 284-286, 62-65.	0.9	3
104	Regulation of corundum band gap width by p elements and vacancy co-doping. Journal of Physics and Chemistry of Solids, 2020, 140, 109357.	1.9	3
105	Localization in YBa2Cu3O7 induced by the self-interaction correction to the density functional theory. Physica C: Superconductivity and Its Applications, 1988, 156, 717-719.	0.6	2
106	Electronic structure of cuprates containing sulfur and phosphorus oxyanions. Physical Review B, 1995, 52, 11830-11836.	1.1	2
107	Electrical resistivity of pure transuranium metals under pressure. Journal of Nuclear Materials, 2011, 413, 41-46.	1.3	2
108	Electronic Structure and Magnetic Properties of Iron Doped TiO₂ (Rutile): XPS Measurements and CPA Calculations. Solid State Phenomena, 2014, 215, 28-34.	0.3	2

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109	XPS spectra, electronic structure, and magnetic properties of RFe5Al7 intermetallics. Journal of Alloys and Compounds, 2018, 733, 82-90.	2.8	2
110	Influence of Cation Impurities and Both Cation and Anion Nonstoichiometry on Aluminum Oxide Energy Gap Width. JETP Letters, 0, , 1.	0.4	2
111	Correlation effects in photoelectron spectra of high-Tc superconductive oxides: the hole-induced redistribution of Cu3d states in La2CuO4. Journal of Electron Spectroscopy and Related Phenomena, 1990, 50, 213-218.	0.8	1
112	Electrical resistivity of microinhomogeneous PdMnxFe1â^'x alloys. Physics of the Solid State, 2002, 44, 199-203.	0.2	1
113	Investigation of the electronic structure and chemical bonding of lead hexacyanoferrate(III). Physics of the Solid State, 2004, 46, 1836-1841.	0.2	1
114	Low-temperature heat capacity of microscopically inhomogeneous PdMn x Fe1 â^' x alloys. Physics of the Solid State, 2006, 48, 291-296.	0.2	1
115	Features of properties of microinhomogeneous PdMn x Fe1â^' x alloys. Bulletin of the Russian Academy of Sciences: Physics, 2007, 71, 1066-1068.	0.1	1
116	Effect of plastic deformation on the electronic properties of the Cu60Pd40 alloy. Physics of the Solid State, 2009, 51, 234-240.	0.2	1
117	Electronic structure of the PuCoIn5 compound. JETP Letters, 2015, 101, 402-406.	0.4	1
118	Evolution of Electronic Spectrum and Magnetic Properties of the Highâ€Temperature Cubic Phase La_{1â^'x}Sr_xFeO_{3â^'Î´} in Coherent Potential Approximation. Physica Status Solidi (B): Basic Research, 2018, 255, 1700442.	0.7	1
119	First-Principles Calculations of the Electronic Structure of Imperfect Crystals in the Coherent Potential Approximation. Physics of Metals and Metallography, 2018, 119, 1249-1253.	0.3	1
120	Electronic Structure and Magnetic Properties of Cobalt-Doped Nonstoichiometric Rutile Thin Films. Journal of Superconductivity and Novel Magnetism, 2019, 32, 1371-1375.	0.8	1
121	Electronic structure and magnetic properties of traces of 3d metals in YBa2Cu3Co7. Journal of Structural Chemistry, 1990, 30, 837-839.	0.3	0
122	Electron structure and correlation effects in high-T c superconductors and transition metal oxides. Bulletin of Materials Science, 1991, 14, 1087-1091.	0.8	0
123	Electronic and magnetic structures and conductivity of strontium ferrite: An ab initio LSDA + U approach. Russian Journal of Electrochemistry, 2007, 43, 570-575.	0.3	0
124	Electronic Structure of Nonstoichiometric LaMnO_{3-x} Calculated in the Coherent Potential Approximation. Solid State Phenomena, 2014, 215, 46-51.	0.3	0
125	Evidence of random distribution of carbon impurities in oxygen sites of zinc oxide. Physica B: Condensed Matter, 2018, 545, 172-175.	1.3	0
126	Energy Gap Decrease in Cation Multidoped Aluminum Oxide. Physica Status Solidi (B): Basic Research, 0, , 2100355.	0.7	0