Takao Kotani

List of Publications by Year
in descending order

64 papers	4,281 citations	201674 27 h-index	110387 64 g-index
66 all docs	66 docs citations	66 times ranked	3590 citing authors

#	Article	IF	Citations
1	Unified description of cuprate superconductors using a four-band<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>d</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>p<m Physical Review Research, 2021, 3, .	3.6	8
2	Nonlinear Extension of the Dynamical Linear Response of Spin: Extended Heisenberg Model. Journal of the Physical Society of Japan, 2021, 90, 094710.	1.6	1
3	Effect of electron localization in theoretical design of Ni-Mn-Ga based magnetic shape memory alloys. Materials and Design, 2021, 209, 109917.	7.0	12
4	Model Construction and a Possibility of Cupratelike Pairing in a New <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>d</mml:mi><mml:mn>9</mml:mn></mml:msup></mml:math> Nickelate Superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo		

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19	Quasiparticle self-consistent GW study of cuprates: electronic structure, model parameters and the two-band theory for Tc. Scientific Reports, 2015, 5, 12050.	3.3	20
20	Formulation of the Augmented Plane-Wave and Muffin-Tin Orbital Method. Journal of the Physical Society of Japan, 2015, 84, 034702.	1.6	18
21	Quasiparticle Self-Consistent GW Method Based on the Augmented Plane-Wave and Muffin-Tin Orbital Method. Journal of the Physical Society of Japan, 2014, 83, 094711.	1.6	39
22	Quasiparticle self-consistent<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:n of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">LaNiO</mml:mi><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">LaNiO</mml:mi><	3.2	14
23	Band structure and pressure-induced metallic transition in iodine â€“ GW calculation. High Pressure Research, 2014, 34, 215-221.	1.2	4
24	Linearized Augmented Plane-Wave and Muffin-Tin Orbital Method with the PBE Exchangeâ€“Correlation: Applied to Molecules from H2 through Kr2. Journal of the Physical Society of Japan, 2013, 82, 124714.	1.6	14
25	Effects of alloying and strain on the magnetic properties of Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>16</mml:mn></mml:msub></mml:math>N<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>. Physical Review B, 2013, 88, .	3.2	72
26	Structural and electronic properties of YH₃at high pressure â€“ band calculation by the GW approximation. High Pressure Research, 2012, 32, 464-470.	1.2	1
27	Calculations of quasiâ€particle spectra of semiconductors under pressure. Physica Status Solidi (B): Basic Research, 2011, 248, 1096-1101.	1.5	2
28	Low-energy coherent Stoner-like excitations inCaFe2As2. Physical Review B, 2011, 83, .	3.2	12
29	Fusion of the LAPW and LMTO methods: The augmented plane wave plus muffin-tin orbital method. Physical Review B, 2010, 81, .	3.2	90
30	Impact ionization rates for Si, GaAs, InAs, ZnS, and GaN in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>approximation. Physical Review B, 2010, 81, .	3.2	34
31	Re-examination of half-metallic ferromagnetism for doped LaMnO₃in a quasiparticle self-consistentGWmethod. Journal of Physics Condensed Matter, 2009, 21, 266002.	1.8	10
32	Electronic and optical properties of IIIâ€nitrides under pressure. Physica Status Solidi (B): Basic Research, 2009, 246, 570-575.	1.5	12
33	Growth and characterization of epitaxial Ba(Zn1/3Ta2/3)O3 (100) thin films. Acta Materialia, 2009, 57, 432-440.	7.9	26
34	Many-body electronic structure of metallic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-uranium. Physical Review B, 2008, 78, .	3.2	39
35	Spin wave dispersion based on the quasiparticle self-consistentGWmethod: NiO, MnO and Î±-MnAs. Journal of Physics Condensed Matter, 2008, 20, 295214.	1.8	55
36	Strain-induced conduction-band spin splitting in GaAs from first-principles calculations. Physical Review B, 2008, 78, .	3.2	16

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37	Ballistic conductance calculation of atomic-scale nanowires of Au and Co. Nanotechnology, 2007, 18, 095709.	2.6	13
38	Breakdown of a gold nanowire between electrodes. Nanotechnology, 2007, 18, 424002.	2.6	7
39	Quasiparticle self-consistent<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>method: A basis for the independent-particle approximation. Physical Review B, 2007, 76, .	3.2	364
40	Quasiparticle self-consistentGWmethod: a short summary. Journal of Physics Condensed Matter, 2007, 19, 365236.	1.8	24
41	Quasiparticle self-consistent<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>method applied to localized<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>4</mml:mn><mml:mi>f</mml:mi></mml:mrow></mml:math>electron systems. Physical Review B, 2007, 76, .	3.2	91
42	Structureâ€“dielectric property relationship for vanadium- and scandium-doped barium strontium titanate. Acta Materialia, 2007, 55, 2647-2657.	7.9	22
43	Electronic and crystal structure of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Cu</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow><mml:mi mathvariant="normal">S</mml:mi></mml:msub></mml:mrow></mml:math>: Full-potential electronic structure calculations. Physical Review B, 2007, 76, .	3.2	230
44	AbÂInitioPrediction of Conduction Band Spin Splitting in Zinc Blende Semiconductors. Physical Review Letters, 2006, 96, 086405.	7.8	193
45	Adequacy of approximations inGWtheory. Physical Review B, 2006, 74, .	3.2	149
46	Quasiparticle Self-ConsistentGWTheory. Physical Review Letters, 2006, 96, 226402.	7.8	781
47	Finite-temperature quasiparticle self-consistentGWapproximation. Physical Review B, 2006, 74, .	3.2	51
48	Elimination of the linearization error inGWcalculations based on the linearized augmented-plane-wave method. Physical Review B, 2006, 74, .	3.2	78
49	Electronic properties of alkali-metal loaded zeolites: Supercrystal Mott insulators. Physical Review B, 2004, 69, .	3.2	27
50	All-Electron Self-ConsistentGWApproximation: Application to Si, MnO, and NiO. Physical Review Letters, 2004, 93, 126406.	7.8	475
51	All-electronGWcalculation based on the LAPW method:â€,Application to wurtzite ZnO. Physical Review B, 2002, 66, .	3.2	184
52	All-electron GW approximation with the mixed basis expansion based on the full-potential LMTO method. Solid State Communications, 2002, 121, 461-465.	1.9	168
53	GW quasiparticle band structure of CaB6. Journal of Physics and Chemistry of Solids, 2002, 63, 1595-1597.	4.0	13
54	Ab initiorandom-phase-approximation calculation of the frequency-dependent effective interaction between 3d electrons: Ni, Fe, and MnO. Journal of Physics Condensed Matter, 2000, 12, 2413-2422.	1.8	57

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55	Optimized-effective-potential method with exact exchange and exact RPA correlation-3d metals. Journal of Magnetism and Magnetic Materials, 1998, 177-181, 569-570.	2.3	21
56	An optimized-effective-potential method for solids with exact exchange and random-phase approximation correlation. Journal of Physics Condensed Matter, 1998, 10, 9241-9261.	1.8	78
57	Optimized effective potential method for exact exchange energy applied to solids. Physica B: Condensed Matter, 1997, 237-238, 332-335.	2.7	12
58	KKR-ASA method in exact exchange-potential band-structure calculations. Physical Review B, 1996, 54, 16502-16514.	3.2	77
59	Exact exchange potential band-structure calculations for simple metals: Li, Na, K, Rb, and Ca. Physical Review B, 1995, 52, 17153-17157.	3.2	28
60	Exact Exchange Potential Band-Structure Calculations by the Linear Muffin-Tin Orbitalâ€“Atomic-Sphere Approximation Method for Si, Ge, C, and MnO. Physical Review Letters, 1995, 74, 2989-2992.	7.8	122
61	Exact exchange-potential band-structure calculations by the LMTO-ASA method: MgO and CaO. Physical Review B, 1994, 50, 14816-14821.	3.2	82
62	Density Functional Theory through Legendre Transformation. Progress of Theoretical Physics, 1994, 92, 833-862.	2.0	22
63	An Analytic Procedure for Evaluating Grain-Size and Grain-Aspect-Ratio Distribution in Polycrystalline Sintered Bodies Based on Monte Carlo Simulation. Journal of the Ceramic Society of Japan, 1992, 100, 1235-1238.	1.3	0
64	Effects of thermal vibrations on the valence-electron density and the forbidden x-ray reflections in C and Si. Physical Review B, 1991, 44, 6131-6136.	3.2	4