

# Masaharu Matsunami

## List of Publications by Year in descending order

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65

papers

2,190

citations

201674

27

h-index

223800

46

g-index

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all docs

65

docs citations

65

times ranked

3420

citing authors

#	ARTICLE	IF	CITATIONS
1	Nodeless superconducting gap in $A_xFe_2Se_2$ ( $A=K,Cs$ ) revealed by angle-resolved photoemission spectroscopy. <i>Nature Materials</i> , 2011, 10, 273-277.	27.5	407
2	Large-Gap Magnetic Topological Heterostructure Formed by Subsurface Incorporation of a Ferromagnetic Layer. <i>Nano Letters</i> , 2017, 17, 3493-3500.	9.1	129
3	Atomic and Electronic Structure of Ultrathin Bi(111) Films Grown on $mml:math$ $xmlns:mml="http://www.w3.org/1998/Math/MathML"$ $\langle mml:msub \rangle \langle mml:mi \rangle Bi \langle /mml:mi \rangle \langle mml:mn \rangle 2 \langle /mml:mn \rangle \langle /mml:msub \rangle \langle mml:msub \rangle \langle mml:mi \rangle Te \langle /mml:mi \rangle \langle mml:mn \rangle 7.8 \langle /mml:mn \rangle \langle /mml:msub \rangle$ $stretchy="false">\rangle (\langle mml:mo \rangle \langle mml:mn \rangle 111 \langle /mml:mn \rangle \langle mml:mo \rangle Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 652 Td (stretchy="false")$ Transition. <i>Physical Review Letters</i> , 2012, 109, 227401.	7.8	122
4	Discovery of colossal Seebeck effect in metallic Cu <sub>2</sub> Se. <i>Nature Communications</i> , 2019, 10, 72.	12.8	122
5	Strong Valence Fluctuation in the Quantum Critical Heavy Fermion Superconductor $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:mi \rangle i^2 \langle /mml:mi \rangle \langle mml:mtext mathvariant="normal">\hat{A} \langle /mml:mtext \rangle \langle mml:msub \rangle \langle mml:mi \rangle YbAlB \langle /mml:mi \rangle \langle mml:mn \rangle 4 \langle /mml:mn \rangle \langle /mml:msub \rangle \langle /mml:math \rangle$ : A Hard X-Ray Photoemission Study. <i>Physical Review Letters</i> , 2010, 104, 247201.	7.8	104
6	Evidence for Suppressed Screening on the Surface of High Temperature $La_{2-x}SrxCuO_4$ and $Nd_{2-x}CeCuO_4$ Superconductors. <i>Physical Review Letters</i> , 2005, 95, 177002.	7.8	100
7	Revisiting the Valence-Band and Core-Level Photoemission Spectra of NiO. <i>Physical Review Letters</i> , 2008, 100, 206401.	7.8	97
8	Evidence for a Correlated Insulator to Antiferromagnetic Metal Transition in CrN. <i>Physical Review Letters</i> , 2010, 104, 236404.	7.8	64
9	Recoil Effect of Photoelectrons in the Fermi Edge of Simple Metals. <i>Physical Review Letters</i> , 2008, 101, 137601.	7.8	57
10	Thermoelectric properties of supersaturated Re solid solution of higher manganese silicides. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 020301.	1.5	55
11	Femtosecond core-level photoemission spectroscopy on $mml:math$ $xmlns:mml="http://www.w3.org/1998/Math/MathML"$ $\langle mml:mrow \rangle \langle mml:mn \rangle 1 \langle /mml:mn \rangle \langle mml:mi \rangle T \langle /mml:mi \rangle \langle /mml:mrow \rangle \langle /mml:math \rangle -TaS \langle mml:math display="inline">\rangle \langle mml:mrow \rangle \langle mml:msub \rangle \langle mml:mrow \rangle \langle mml:mn \rangle 2 \langle /mml:mn \rangle \langle /mml:msub \rangle \langle /mml:mrow \rangle \langle /mml:math \rangle$ using a 60-eV	3.2	53
12	Time-resolved HAXPES at SACLAC: probe and pump pulse-induced space-charge effects. <i>New Journal of Physics</i> , 2014, 16, 123045.	2.9	51
13	Electronic structure characterization of $La_2NiMnO_6$ epitaxial thin films using synchrotron-radiation photoelectron spectroscopy and optical spectroscopy. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	43
14	Role of Quantum and Surface-State Effects in the Bulk Fermi-Level Position of Ultrathin Bi Films. <i>Physical Review Letters</i> , 2015, 115, 106803.	7.8	41
15	Spectroscopic Evidence for Competing Reconstructions in Polar Multilayers $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"$ $\langle mml:msub \rangle \langle mml:mi \rangle LaAlO \langle /mml:mi \rangle \langle mml:mn \rangle 3 \langle /mml:mn \rangle \langle /mml:msub \rangle \langle mml:mo \rangle \langle /mml:mo \rangle \langle /mml:math \rangle$ $7.8 \langle mml:msub \rangle \langle mml:math display="block">Physical Review Letters$ , 2009, 102, 236401.	7.8	40
16	Infrared microspectroscopy station at BL43IR of SPring-8. <i>Infrared Physics and Technology</i> , 2004, 45, 369-373.	2.9	38
17	Single-Crystal Pentacene Valence-Band Dispersion and Its Temperature Dependence. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1259-1264.	4.6	37
18	Observation of Energy Gap in $FeGa_{3-x}$ . <i>Journal of the Physical Society of Japan</i> , 2008, 77, 024705.	1.6	34

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19	Optical conductivity of $\text{Yb}_{1-x}\text{Lu}_x\text{B}_2$ : Energy gap and mid-infrared peak in diluted Kondo semiconductors. <i>Physical Review B</i> , 2000, 62, R13265-R13269.	3.2	33
20	Gap Formation in the Filled Skutterudite $\text{CeOs}_4\text{Sb}_12$ . <i>Journal of the Physical Society of Japan</i> , 2003, 72, 2722-2725.	1.6	33
21	Investigation of Thermoelectric Properties of $\text{Ag}_2\text{SxSe}_{1-x}$ ( $x=0.0, 0.2$ and $0.4$ ). <i>Journal of Electronic Materials</i> , 2020, 49, 2846-2854.	2.2	31
22	Kondo resonance in $\text{PrTi}_3$ . <i>Journal of the Physical Society of Japan</i> , 2004, 73, 1201-1204.	3.2	30
23	Surface Fermionaga-Luttinger Liquid State on $\text{InSb}$ . <i>Physical Review Letters</i> , 2011, 106, 016401.	7.8	30
24	Temperature Dependence of Magnetically Active Charge Excitations in Magnetite across the Verwey Transition. <i>Physical Review Letters</i> , 2015, 115, 256405.	7.8	30
25	Anomalous State Sandwiched between Fermi Liquid and Charge Ordered Mott-insulating Phases of $\text{Ti}_3\text{O}_7$ . <i>Physical Review Letters</i> , 2010, 104, 106401.	7.8	29
26	Quantum valence criticality in a correlated metal. <i>Science Advances</i> , 2018, 4, eaao3547.	10.3	28
27	Pressure Tuning of an Ionic Insulator into a Heavy Electron Metal: An Infrared Study of $\text{YbS}$ . <i>Physical Review Letters</i> , 2009, 103, 237202.	7.8	27
28	Enhanced Thermoelectric Properties of W- and Fe-Substituted $\text{MnSi}_3$ . <i>Journal of Electronic Materials</i> , 2016, 45, 5279-5284.	2.2	26
29	High-Performance Solid-State Thermal Diode Consisting of $\text{Ag}_2(\text{S},\text{Se},\text{Te})$ . <i>Journal of Electronic Materials</i> , 2020, 49, 2895-2901.	2.2	26
30	Combining photoemission and optical spectroscopies for reliable valence determination in $\text{YbS}$ and $\text{Yb}$ metal. <i>Physical Review B</i> , 2008, 78, .	3.2	24
31	Electronic structure of an antiferromagnetic metal: $\text{CaCrO}_3$ . <i>Physical Review B</i> , 2011, 83, .	3.2	24
32	Fermi-Level Tuning of Topological Insulator Thin Films. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 110112.	1.5	19
33	Far-Infrared Spectroscopy of Electronic States of $\text{CuIr}_2\text{Se}_4$ at High Pressure. <i>Journal of the Physical Society of Japan</i> , 2005, 74, 1099-1102.	1.6	15
34	Synergetic Enhancement of the Power Factor and Suppression of Lattice Thermal Conductivity via Electronic Structure Modification and Nanostructuring on a Ni- and B-Codoped $\text{p}-\text{i}-\text{n}$ -Type $\text{Si}_3\text{Ge}$ Alloy for Thermoelectric Application. <i>ACS Applied Electronic Materials</i> , 2021, 3, 5621-5631.	4.3	15
35	Strongly hybridized electronic structure of $\text{YbAl}_3$ . <i>Physical Review B</i> , 2013, 87, .	3.2	14
36	Photoemission Evidence for Valence Fluctuations and Kondo Resonance in $\text{YbAl}_3$ . <i>Journal of the Physical Society of Japan</i> , 2012, 81, 073702.	1.6	12

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37	Optical Conductivity of CeNiSn, CeRhSb, and CeRhAs. <i>Journal of the Physical Society of Japan</i> , 2002, 71, 291-293.	1.6	11
38	Electronic structure of Mott-insulator CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> : Photoemission and inverse photoemission study. <i>Solid State Communications</i> , 2015, 217, 17-20.	1.9	11
39	Long-Term Stability of the Colossal Seebeck Effect in Metallic Cu <sub>2</sub> Se. <i>Journal of Electronic Materials</i> , 2020, 49, 2855-2861.	2.2	11
40	Dynamical variation of carrier concentration and colossal Seebeck effect in Cu <sub>2</sub> S low-temperature phase. <i>Journal of Alloys and Compounds</i> , 2020, 826, 154155.	5.5	11
41	Development of a single-shot CCD-based data acquisition system for time-resolved X-ray photoelectron spectroscopy at an X-ray free-electron laser facility. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 183-192.	2.4	11
42	Au and B co-doped p-type Si-Ge nanocomposites possessing $\langle i \rangle ZT \langle /i \rangle = 1.63$ synthesized by ball milling and low-temperature sintering. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 125501.	1.5	10
43	Enhancement of the Thermoelectric Performance of Si-Ge Nanocomposites Containing a Small Amount of Au and Optimization of Boron Doping. <i>Journal of Electronic Materials</i> , 2020, 49, 2813-2824.	2.2	10
44	Mixed-phase effect of a high Seebeck coefficient and low electrical resistivity in Ag <sub>2</sub> S. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 115503.	2.8	10
45	Direct observation of pseudo-gap electronic structure in the Heusler-type Fe <sub>2</sub> VAl thin film. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2019, 232, 1-4.	1.7	9
46	Angle-resolved photoemission spectroscopy on mixed-valent Sm <sub>1-x</sub> Y <sub>x</sub> S. <i>Journal of the Korean Physical Society</i> , 2013, 62, 2028-2031.	0.7	7
47	Electron Dynamics Probed by Time-Resolved Hard X-ray Photoelectron Spectroscopy. <i>Transactions of the Materials Research Society of Japan</i> , 2014, 39, 469-473.	0.2	7
48	Direct observation of heterogeneous valence state in Yb-based quasicrystalline approximants. <i>Physical Review B</i> , 2017, 96, .	3.2	6
49	Soft X-ray photoelectron spectroscopy study of Fe <sub>2</sub> P(0001). <i>Surface Science</i> , 2014, 624, 21-24.	1.9	5
50	Electronic Structures of the Kondo Semiconductor YbB <sub>12</sub> : Temperature and Non-Magnetic Dilution Effects. <i>Journal of the Physical Society of Japan</i> , 2002, 71, 303-305.	1.6	4
51	Carrier Concentration Dependence of Superconducting Gap of Bi <sub>2</sub> (Sr,La) <sub>2</sub> CuO <sub>6+1</sub> . <i>Journal of the Physical Society of Japan</i> , 2016, 85, 104710.	1.6	4
52	Carrier concentration dependence of thermoelectric properties of Fe(V <sub>1-x</sub> <sub>i</sub> ) <sub>T</sub> ETQq0 0 0 rgBT /Overlock 10 Tf 50 147 T 2017, 56, 111202.	1.5	4
53	Simultaneous enhancements of thermopower and electrical conductivity in quasi-one-dimensional $\tilde{\Gamma}$ -YbAlB <sub>4</sub> single crystal. <i>Applied Physics Letters</i> , 2021, 119, 223905.	3.3	4
54	Electronic Structure of Ni <sub>2</sub> P(0001) Studied by Resonant Photoelectron Spectroscopy. <i>E-Journal of Surface Science and Nanotechnology</i> , 2015, 13, 93-98.	0.4	3

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55	Low power density multihole cathode very-high-frequency plasma for mixed phase Si:H thin films. Applied Physics Letters, 2008, 93, 191502.		3.3	2
56	Three-dimensional angle-resolved photoemission spectra of EuO thin film. Journal of Electron Spectroscopy and Related Phenomena, 2013, 191, 7-10.		1.7	2
57	Superconducting gap of heavily underdoped copper oxide superconductor $(\text{Bi},\text{Pb})_2\text{Sr}_2(\text{Ca},\text{Y})\text{Cu}_2\text{O}_{8+\delta}$ . Journal of Electron Spectroscopy and Related Phenomena, 2017, 220, 54-57.		1.7	2
58	Thermoelectric properties of $\text{Yb}_{5}\text{Si}_3$ . Japanese Journal of Applied Physics, 2020, 59, 010902.		1.5	2
59	Optical study on metal-insulator change in $\text{PrFe}_4\text{P}_{12}$ under high pressure. Journal of Magnetism and Magnetic Materials, 2007, 310, 221-222.		2.3	1
60	Electronic state of $\text{PrFe}_4\text{P}_{12}$ under high pressure probed by infrared spectroscopy. Physica B: Condensed Matter, 2008, 403, 948-949.		2.7	1
61	Electronic structure of LaTe and CeTe. Journal of Electron Spectroscopy and Related Phenomena, 2016, 208, 116-120.		1.7	1
62	Hard x-ray photoemission spectroscopy of rhenium substituted higher manganese silicides. Journal of Applied Physics, 2020, 127, .		2.5	1
63	Hard X-ray and soft X-ray photoemission study of vanadium oxides. Journal of Magnetism and Magnetic Materials, 2007, 310, e289-e291.		2.3	0
64	Universal scaling in the optical conductivity of heavy fermion compounds. Physica B: Condensed Matter, 2008, 403, 761-763.		2.7	0
65	High Pressure IR Studies of Correlated Electron Materials at SPring-8. , 2010, , .			0