

# 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

65  
all docs

65  
docs citations

65  
times ranked

3420  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mixed-phase effect of a high Seebeck coefficient and low electrical resistivity in Ag <sub>2</sub> S. Journal Physics D: Applied Physics, 2021, 54, 115503.	2.8	10
2	Simultaneous enhancements of thermopower and electrical conductivity in quasi-one-dimensional $\text{In}_{1-x}\text{Yb}_x\text{AlB}_4$ single crystal. Applied Physics Letters, 2021, 119, 223905.	3.3	4
3	Synergetic Enhancement of the Power Factor and Suppression of Lattice Thermal Conductivity via Electronic Structure Modification and Nanostructuring on a Ni- and B-Codoped <i>p</i> -Type Si $\delta$ -Ge Alloy for Thermoelectric Application. ACS Applied Electronic Materials, 2021, 3, 5621-5631.	4.3	15
4	Investigation of Thermoelectric Properties of Ag <sub>2</sub> S <sub>x</sub> Se <sub>1-x</sub> (x = 0.0, 0.2 and 0.4). Journal of Electronic Materials, 2020, 49, 2846-2854.	2.2	31
5	Long-Term Stability of the Colossal Seebeck Effect in Metallic Cu <sub>2</sub> Se. Journal of Electronic Materials, 2020, 49, 2855-2861.	2.2	11
6	Enhancement of the Thermoelectric Performance of Si-Ge Nanocomposites Containing a Small Amount of Au and Optimization of Boron Doping. Journal of Electronic Materials, 2020, 49, 2813-2824.	2.2	10
7	Thermoelectric properties of Yb <sub>5</sub> Si <sub>3</sub> . Japanese Journal of Applied Physics, 2020, 59, 010902.	1.5	2
8	Dynamical variation of carrier concentration and colossal Seebeck effect in Cu <sub>2</sub> S low-temperature phase. Journal of Alloys and Compounds, 2020, 826, 154155.	5.5	11
9	Hard x-ray photoemission spectroscopy of rhenium substituted higher manganese silicides. Journal of Applied Physics, 2020, 127, .	2.5	1
10	High-Performance Solid-State Thermal Diode Consisting of Ag <sub>2</sub> (S,Se,Te). Journal of Electronic Materials, 2020, 49, 2895-2901.	2.2	26
11	Au and B co-doped <i>p</i> -type Si-Ge nanocomposites possessing $ZT = 1.63$ synthesized by ball milling and low-temperature sintering. Japanese Journal of Applied Physics, 2019, 58, 125501.	1.5	10
12	Direct observation of pseudo-gap electronic structure in the Heusler-type Fe <sub>2</sub> VAl thin film. Journal of Electron Spectroscopy and Related Phenomena, 2019, 232, 1-4.	1.7	9
13	Discovery of colossal Seebeck effect in metallic Cu <sub>2</sub> Se. Nature Communications, 2019, 10, 72.	12.8	122
14	Quantum valence criticality in a correlated metal. Science Advances, 2018, 4, eaao3547.	10.3	28
15	Single-Crystal Pentacene Valence-Band Dispersion and Its Temperature Dependence. Journal of Physical Chemistry Letters, 2017, 8, 1259-1264.	4.6	37
16	Large-Gap Magnetic Topological Heterostructure Formed by Subsurface Incorporation of a Ferromagnetic Layer. Nano Letters, 2017, 17, 3493-3500.	9.1	129
17	Superconducting gap of heavily underdoped copper oxide superconductor (Bi,Pb) <sub>2</sub> Sr <sub>2</sub> (Ca,Y)Cu <sub>2</sub> O <sub>8+<math>\delta</math></sub> . Journal of Electron Spectroscopy and Related Phenomena, 2017, 220, 54-57.	1.7	2
18	Carrier concentration dependence of thermoelectric properties of Fe(V <sub>1-x</sub> ) <sub>2</sub> Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 Td 2017, 56, 111202.	1.5	4

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19	Direct observation of heterogeneous valence state in Yb-based quasicrystalline approximants. <i>Physical Review B</i> , 2017, 96, .	3.2	6
20	Enhanced Thermoelectric Properties of W- and Fe-Substituted MnSi $\hat{\Gamma}_3$ . <i>Journal of Electronic Materials</i> , 2016, 45, 5279-5284.	2.2	26
21	Carrier Concentration Dependence of Superconducting Gap of Bi <sub>2</sub> (Sr,La) <sub>2</sub> CuO <sub>6</sub> + $\hat{\Gamma}$ . <i>Journal of the Physical Society of Japan</i> , 2016, 85, 104710.	1.6	4
22	Electronic structure of LaTe and CeTe. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2016, 208, 116-120.	1.7	1
23	Thermoelectric properties of supersaturated Re solid solution of higher manganese silicides. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 020301.	1.5	55
24	Surface Tomonaga-Luttinger-Liquid State on $\langle \text{Bi} \rangle \langle \text{InSb} \rangle$ Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 527 Td (stretchy="false")	7.8	30
25	Temperature Dependence of Magnetically Active Charge Excitations in Magnetite across the Verwey Transition. <i>Physical Review Letters</i> , 2015, 115, 256405.	7.8	30
26	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
27	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
28	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
29	Time-resolved HAXPES at SACLA: probe and pump pulse-induced space-charge effects. <i>New Journal of Physics</i> , 2014, 16, 123045.	2.9	51
30	Soft X-ray photoelectron spectroscopy study of Fe <sub>2</sub> P(0001). <i>Surface Science</i> , 2014, 624, 21-24.	1.9	5
31	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
32	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
33	Angle-resolved photoemission spectroscopy on mixed-valent Sm <sup>1+x</sup> Y <sub>x</sub> S. <i>Journal of the Korean Physical Society</i> , 2013, 62, 2028-2031.	0.7	7
34	Three-dimensional angle-resolved photoemission spectra of EuO thin film. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 191, 7-10.	1.7	2
35	Fermi-Level Tuning of Topological Insulator Thin Films. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 110112.	1.5	19
36	Strongly hybridized electronic structure of YbAl <sub>2</sub> : An angle-resolved photoemission study. <i>Physical Review B</i> , 2013, 87, .	3.2	14

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37	Photoemission Evidence for Valence Fluctuations and Kondo Resonance in $\text{YbAl}_2$ . Journal of the Physical Society of Japan, 2012, 81, 073702.	1.6	12
38	Atomic and Electronic Structure of Ultrathin $\text{Bi}(111)$ Films Grown on $\text{Te}$ . Physical Review Letters, 2012, 109, 227401.	3.2	24
39	Electronic structure of an antiferromagnetic metal, $\text{CaCrO}_3$ . Physical Review B, 2011, 83, .	27.5	407
40	Nodeless superconducting gap in $\text{AxFe}_2\text{Se}_2$ (A=K,Cs) revealed by angle-resolved photoemission spectroscopy. Nature Materials, 2011, 10, 273-277.	3.2	53
41	Kondo resonance in $\text{PrTi}$ . Physical Review Letters, 2010, 104, 247201.	3.2	30
42	Femtosecond core-level photoemission spectroscopy on $\text{TaS}_2$ using a 60-eV laser. Physical Review B, 2011, 84, .	7.8	64
43	Evidence for a Correlated Insulator to Antiferromagnetic Metal Transition in $\text{CrN}$ . Physical Review Letters, 2010, 104, 236404.		0
44	High Pressure IR Studies of Correlated Electron Materials at Spring-8. , 2010, , .		
45	Strong Valence Fluctuation in the Quantum Critical Heavy Fermion Superconductor $\text{YbAl}_4$ : A Hard X-Ray Photoemission Study. Physical Review Letters, 2010, 104, 247201.	7.8	104
46	Anomalous State Sandwiched between Fermi Liquid and Charge Ordered Mott-Insulating Phases of $\text{TiO}_7$ . Physical Review Letters, 2010, 104, 106401.	7.8	29
47	Spectroscopic Evidence for Competing Reconstructions in Polar Multilayers $\text{LaAlO}_3$ . Physical Review Letters, 2009, 102, 236401.	7.8	40
48	Electronic structure characterization of $\text{La}_2\text{NiMnO}_6$ epitaxial thin films using synchrotron-radiation photoelectron spectroscopy and optical spectroscopy. Applied Physics Letters, 2009, 94, .	3.3	43
49	Pressure Tuning of an Ionic Insulator into a Heavy Electron Metal: An Infrared Study of $\text{YbS}$ . Physical Review Letters, 2009, 103, 237202.	7.8	27
50	Universal scaling in the optical conductivity of heavy fermion compounds. Physica B: Condensed Matter, 2008, 403, 761-763.	2.7	0
51	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
52	Observation of Energy Gap in $\text{FeGa}_3$ . Journal of the Physical Society of Japan, 2008, 77, 024705.	1.6	34
53	Recoil Effect of Photoelectrons in the Fermi Edge of Simple Metals. Physical Review Letters, 2008, 101, 137601.	7.8	57
54	Low power density multihole cathode very-high-frequency plasma for mixed phase $\text{Si:H}$ thin films. Applied Physics Letters, 2008, 93, 191502.	3.3	2

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55	Combining photoemission and optical spectroscopies for reliable valence determination in YbS and Yb metal. <i>Physical Review B</i> , 2008, 78, .	3.2	24
56	Revisiting the Valence-Band and Core-Level Photoemission Spectra of NiO. <i>Physical Review Letters</i> , 2008, 100, 206401.	7.8	97
57	Hard X-ray and soft X-ray photoemission study of vanadium oxides. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, e289-e291.	2.3	0
58	Optical study on metal-insulator change in PrFe <sub>4</sub> P <sub>12</sub> under high pressure. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 221-222.	2.3	1
59	Evidence for Suppressed Screening on the Surface of High Temperature La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> and Nd <sub>2-x</sub> Ce <sub>x</sub> CuO <sub>4</sub> Superconductors. <i>Physical Review Letters</i> , 2005, 95, 177002.	7.8	100
60	Far-Infrared Spectroscopy of Electronic States of Cu <sub>2</sub> Se <sub>4</sub> at High Pressure. <i>Journal of the Physical Society of Japan</i> , 2005, 74, 1099-1102.	1.6	15
61	Infrared microspectroscopy station at BL43IR of SPring-8. <i>Infrared Physics and Technology</i> , 2004, 45, 369-373.	2.9	38
62	Gap Formation in the Filled Skutterudite CeOs <sub>4</sub> Sb <sub>12</sub> . <i>Journal of the Physical Society of Japan</i> , 2003, 72, 2722-2725.	1.6	33
63	Optical Conductivity of CeNiSn, CeRhSb, and CeRhAs. <i>Journal of the Physical Society of Japan</i> , 2002, 71, 291-293.	1.6	11
64	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
65	Optical conductivity of Yb <sub>1-x</sub> Lu <sub>x</sub> B <sub>12</sub> : Energy gap and mid-infrared peak in diluted Kondo semiconductors. <i>Physical Review B</i> , 2000, 62, R13265-R13269.	3.2	33