

Megan E Eckart

List of Publications by Year in descending order

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128
papers

1,994
citations

257357

24
h-index

330025

37
g-index

128
all docs

128
docs citations

128
times ranked

1963
citing authors

#	ARTICLE	IF	CITATIONS
1	High-resolution Laboratory Measurements of K-shell X-Ray Line Polarization and Excitation Cross Sections in Helium-like S XV Ions. <i>Astrophysical Journal</i> , 2021, 914, 34.	1.6	9
2	Microcalorimeter measurement of x-ray spectra from a high-temperature magnetically confined plasma. <i>Review of Scientific Instruments</i> , 2021, 92, 063520.	0.6	2
3	First Operation of TES Microcalorimeters in Space with the Micro-X Sounding Rocket. <i>Journal of Low Temperature Physics</i> , 2020, 199, 1062-1071.	0.6	12
4	Highly charged ions in a new era of high resolution X-ray astrophysics. <i>X-Ray Spectrometry</i> , 2020, 49, 218-233.	0.9	8
5	Simple, compact, high-resolution monochromatic x-ray source for characterization of x-ray calorimeter arrays. <i>Review of Scientific Instruments</i> , 2020, 91, 083110.	0.6	8
6	Demonstration of Fine-Pitch High-Resolution X-ray Transition-Edge Sensor Microcalorimeters Optimized for Energies below 1ÅkeV. <i>Journal of Low Temperature Physics</i> , 2020, 199, 949-954.	0.6	7
7	High-Frequency Noise Peaks in Mo/Au Superconducting Transition-Edge Sensor Microcalorimeters. <i>Journal of Low Temperature Physics</i> , 2020, 200, 192-199.	0.6	5
8	Micro-X Sounding Rocket: Transitioning from First Flight to a Dark Matter Configuration. <i>Journal of Low Temperature Physics</i> , 2020, 199, 1072-1081.	0.6	4
9	Quantum Efficiency Study and Reflectivity Enhancement of Au/Bi Absorbers. <i>Journal of Low Temperature Physics</i> , 2020, 199, 393-400.	0.6	8
10	Planning in-flight calibration for XRISM. , 2020, , .		3
11	Optimal filtering of overlapped pulses in microcalorimeter data. <i>Journal of Applied Physics</i> , 2020, 128, 174503.	1.1	3
12	Poisson vs. Gaussian statistics for sparse X-ray data: Application to the soft X-ray spectrometer. <i>Publication of the Astronomical Society of Japan</i> , 2019, 71, .	1.0	4
13	Energy Calibration of High-Resolution X-Ray TES Microcalorimeters With 3 eV Optical Photons. <i>IEEE Transactions on Applied Superconductivity</i> , 2019, 29, 1-4.	1.1	9
14	Extended Line Spread Function of TES Microcalorimeters With Au/Bi Absorbers. <i>IEEE Transactions on Applied Superconductivity</i> , 2019, 29, 1-5.	1.1	11
15	Thermal fluctuation noise in Mo/Au superconducting transition-edge sensor microcalorimeters. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	22
16	Design of Magnetic Shielding and Field Coils for a TES X-ray Microcalorimeter Test Platform. <i>Journal of Low Temperature Physics</i> , 2019, 194, 433-442.	0.6	2
17	Constraints on the chemical enrichment history of the Perseus Cluster of galaxies from high-resolution X-ray spectroscopy. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 483, 1701-1721.	1.6	39
18	Multiabsorber transition-edge sensors for x-ray astronomy. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2019, 5, 1.	1.0	18

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19	Lynx x-ray microcalorimeter. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2019, 5, 1.	1.0	39
20	Design of optical/IR blocking filters for the Lynx X-ray Microcalorimeter. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2019, 5, 1.	1.0	3
21	A High Spectral Resolution Study of the Soft X-Ray Background with the X-Ray Quantum Calorimeter. <i>Astrophysical Journal</i> , 2019, 884, 120.	1.6	13
22	Resolve Instrument on X-ray Astronomy Recovery Mission (XARM). <i>Journal of Low Temperature Physics</i> , 2018, 193, 991-995.	0.6	31
23	Effects of Normal Metal Features on Superconducting Transition-Edge Sensors. <i>Journal of Low Temperature Physics</i> , 2018, 193, 231-240.	0.6	22
24	Atomic data and spectral modeling constraints from high-resolution X-ray observations of the Perseus cluster with Hitomi. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	46
25	Detector Calibration for the Micro-X Sounding Rocket X-ray Telescope. <i>Journal of Low Temperature Physics</i> , 2018, 193, 984-990.	0.6	4
26	Detection of polarized gamma-ray emission from the Crab nebula with the Hitomi Soft Gamma-ray Detector. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	21
27	Study of Dissipative Losses in AC-Biased Mo/Au Bilayer Transition-Edge Sensors. <i>Journal of Low Temperature Physics</i> , 2018, 193, 356-364.	0.6	12
28	Fabrication of Flexible Superconducting Wiring with High Current-Carrying Capacity Indium Interconnects. <i>Journal of Low Temperature Physics</i> , 2018, 193, 687-694.	0.6	4
29	The Warm Electron Beam Ion Trap (WEBIT): An instrument for ground calibration of space-borne x-ray spectrometers. <i>Review of Scientific Instruments</i> , 2018, 89, 10F124.	0.6	1
30	Search for thermal X-ray features from the Crab nebula with the Hitomi soft X-ray spectrometer. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	8
31	In-flight calibration of Hitomi Soft X-ray Spectrometer. (1) Background. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	10
32	Hitomi observations of the LMC SNR Nâ€™132â€™D: Highly redshifted X-ray emission from iron ejecta. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	5
33	Glimpse of the highly obscured HMXB IGRâ€™16318â€™4848 with Hitomi. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	4
34	Mapping TES Temperature Sensitivity and Current Sensitivity as a Function of Temperature, Current, and Magnetic Field with IV Curve and Complex Admittance Measurements. <i>Journal of Low Temperature Physics</i> , 2018, 193, 321-327.	0.6	8
35	In-flight calibration of Hitomi Soft X-ray Spectrometer. (3) Effective area. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	7
36	Measurements of resonant scattering in the Perseus Cluster core with Hitomi SXS. <i>Publication of the Astronomical Society of Japan</i> , 2018, 70, .	1.0	29

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37	Atmospheric gas dynamics in the Perseus cluster observed with Hitomi. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	57
38	Hitomi observation of radio galaxy NGC1275: The first X-ray microcalorimeter spectroscopy of Fe-K \pm line emission from an active galactic nucleus. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	27
39	Temperature structure in the Perseus cluster core observed with Hitomi. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	20
40	Performance of an X-ray Microcalorimeter with a 240 μ m Absorber and a 50 μ m TES Bilayer. Journal of Low Temperature Physics, 2018, 193, 337-343.	0.6	33
41	Hitomi X-ray observation of the pulsar wind nebula G21.5 α 0.9. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	8
42	In-Orbit Performance of the Digital Electronics for the X-Ray Microcalorimeter Onboard the Hitomi Satellite. Journal of Low Temperature Physics, 2018, 193, 505-511.	0.6	2
43	Multi-parameter Nonlinear Gain Correction of X-ray Transition Edge Sensors for the X-ray Integral Field Unit. Journal of Low Temperature Physics, 2018, 193, 931-939.	0.6	5
44	Toward Large Field-of-View High-Resolution X-ray Imaging Spectrometers: Microwave Multiplexed Readout of 28 TES Microcalorimeters. Journal of Low Temperature Physics, 2018, 193, 258-266.	0.6	16
45	Design, implementation, and performance of the Astro-H SXS calorimeter array and anticoincidence detector. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	10
46	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	21
47	In-flight verification of the calibration and performance of the ASTRO-H (Hitomi) Soft X-ray Spectrometer. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	7
48	Design, implementation, and performance of the Astro-H soft x-ray spectrometer aperture assembly and blocking filters. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	6
49	In-flight performance of the soft x-ray spectrometer detector system on Astro-H. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	4
50	Testing the X-IFU calibration requirements: an example for quantum efficiency and energy resolution. , 2018, , .		2
51	Energy scale calibration and drift correction of the X-IFU. , 2018, , .		5
52	Super DIOS: future x-ray spectroscopic mission to search for dark baryons. , 2018, , .		2
53	Fabrication of X-Ray Microcalorimeter Focal Planes Composed of Two Distinct Pixel Types. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	7
54	Design and Performance of Hybrid Arrays of Mo/Au Bilayer Transition-Edge Sensors. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	8

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55	Electron-Beam Deposition of Superconducting Molybdenum Thin Films for the Development of Mo/Au TES X-ray Microcalorimeter. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	10
56	Reduced-Scale Transition-Edge Sensor Detectors for Solar and X-Ray Astrophysics. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	5
57	Hitomi Constraints on the 3.5 keV Line in the Perseus Galaxy Cluster. Astrophysical Journal Letters, 2017, 837, L15.	3.0	84
58	Parametric Characterization of TES Detectors Under DC Bias. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	1
59	Mapping of the resistance of a superconducting transition edge sensor as a function of temperature, current, and applied magnetic field. Journal of Applied Physics, 2017, 121, .	1.1	13
60	High count-rate study of two TES x-ray microcalorimeters with different transition temperatures. Superconductor Science and Technology, 2017, 30, 104005.	1.8	0
61	Calibration sources and filters of the soft x-ray spectrometer instrument on the Hitomi spacecraft. Journal of Astronomical Telescopes, Instruments, and Systems, 2017, 4, 1.	1.0	16
62	The evaluation of the Hitomi (Astro-H)/SXS spare beryllium window in 3.8-30 keV. , 2017, , .		0
63	In-orbit operation of the ASTRO-H SXS. , 2016, , .		15
64	Status of the micro-X sounding rocket x-ray spectrometer. , 2016, , .		2
65	Calibration of the microcalorimeter spectrometer on-board the Hitomi (Astro-H) observatory (invited). Review of Scientific Instruments, 2016, 87, 11D503.	0.6	0
66	Cryogen-free operation of the Soft X-ray Spectrometer instrument. , 2016, , .		6
67	In-flight performance of the Soft X-ray Spectrometer detector system on Astro-H. , 2016, , .		10
68	Performance of the helium dewar and cryocoolers of ASTRO-H SXS. , 2016, , .		11
69	Vibration isolation system for cryocoolers of Soft X-ray Spectrometer (SXS) onboard ASTRO-H (Hitomi). Proceedings of SPIE, 2016, , .	0.8	8
70	Transition-edge sensor pixel parameter design of the microcalorimeter array for the x-ray integral field unit on Athena. Proceedings of SPIE, 2016, , .	0.8	32
71	The Astro-H high resolution soft x-ray spectrometer. Proceedings of SPIE, 2016, , .	0.8	51
72	In-flight verification of the calibration and performance of the ASTRO-H (Hitomi) Soft X-Ray Spectrometer. Proceedings of SPIE, 2016, , .	0.8	10

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73	Development of x-ray microcalorimeter imaging spectrometers for the X-ray Surveyor mission concept. Proceedings of SPIE, 2016, , .	0.8	5
74	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. , 2016, , .		8
75	TES-Based X-ray Microcalorimeter Performances Under AC Bias and FDM for Athena. Journal of Low Temperature Physics, 2016, 184, 436-442.	0.6	14
76	Characterization of a Prototype TES-Based Anti-coincidence Detector for Use with Future X-ray Calorimeter Arrays. Journal of Low Temperature Physics, 2016, 184, 23-29.	0.6	3
77	Progress Towards Improved Analysis of TES X-ray Data Using Principal Component Analysis. Journal of Low Temperature Physics, 2016, 184, 382-388.	0.6	10
78	Temporal Gain Correction for X-ray Calorimeter Spectrometers. Journal of Low Temperature Physics, 2016, 184, 498-504.	0.6	16
79	The design, implementation, and performance of the Astro-H SXS calorimeter array and anti-coincidence detector. , 2016, , .		15
80	The design, implementation, and performance of the Astro-H SXS aperture assembly and blocking filters. , 2016, , .		9
81	In-flight performance of pulse processing system of the ASTRO-H soft x-ray spectrometer. , 2016, , .		9
82	Fine pitch transition-edge sensor X-ray microcalorimeters with sub-eV energy resolution at 1.5 keV. Applied Physics Letters, 2015, 107, .	1.5	34
83	SEARCHING FOR keV STERILE NEUTRINO DARK MATTER WITH X-RAY MICROCALORIMETER SOUNDING ROCKETS. Astrophysical Journal, 2015, 814, 82.	1.6	35
84	Uniformity of Kilo-Pixel Arrays of Transition-Edge Sensors for X-ray Astronomy. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	10
85	Soft x-ray spectrometer (SXS): the high-resolution cryogenic spectrometer onboard ASTRO-H. Proceedings of SPIE, 2014, , .	0.8	29
86	High Count-Rate Studies of Small-Pitch Transition-Edge Sensor X-ray Microcalorimeters. Journal of Low Temperature Physics, 2014, 176, 597-603.	0.6	8
87	Large Area Transition Edge Sensor X-ray Microcalorimeters for Diffuse X-ray Background Studies. Journal of Low Temperature Physics, 2014, 176, 331-336.	0.6	4
88	Characterization and Performance of Magnetic Calorimeters for Applications in X-ray Spectroscopy. Journal of Low Temperature Physics, 2014, 176, 617-623.	0.6	19
89	Characterization of Mo/Au Transition-Edge Sensors with Different Geometric Configurations. Journal of Low Temperature Physics, 2014, 176, 356-362.	0.6	17
90	The Magnetically-Tuned Transition-Edge Sensor. Journal of Low Temperature Physics, 2014, 176, 392-399.	0.6	2

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91	Advances in Small Pixel TES-Based X-Ray Microcalorimeter Arrays for Solar Physics and Astrophysics. IEEE Transactions on Applied Superconductivity, 2013, 23, 2100705-2100705.	1.1	37
92	Magnetically Tuned Superconducting Transition-Edge Sensors. IEEE Transactions on Applied Superconductivity, 2013, 23, 2101405-2101405.	1.1	7
93	Development of TES Microcalorimeter Arrays for the Micro-X Sounding Rocket Experiment. IEEE Transactions on Applied Superconductivity, 2013, 23, 2101705-2101705.	1.1	4
94	Time Domain Multiplexed Readout of Magnetically Coupled Calorimeters. IEEE Transactions on Applied Superconductivity, 2013, 23, 2500905-2500905.	1.1	6
95	Implications of weak-link behavior on the performance of Mo/Au bilayer transition-edge sensors. Journal of Applied Physics, 2013, 114, .	1.1	49
96	Update on the Micro-X Sounding Rocket payload. , 2012, , .		4
97	OBSERVED LIMITS ON CHARGE EXCHANGE CONTRIBUTIONS TO THE DIFFUSE X-RAY BACKGROUND. Astrophysical Journal, 2012, 758, 143.	1.6	14
98	Kilopixel X-ray Microcalorimeter Arrays for Astrophysics: Device Performance and Uniformity. Journal of Low Temperature Physics, 2012, 167, 732-740.	0.6	14
99	Fabrication of Microstripline Wiring for Large Format Transition Edge Sensor Arrays. Journal of Low Temperature Physics, 2012, 167, 547-553.	0.6	7
100	Implications of Weak Link Effects on Thermal Characteristics of Transition-Edge Sensors. Journal of Low Temperature Physics, 2012, 167, 121-128.	0.6	10
101	Development of a TES-Based Anti-coincidence Detector for Future x-Ray Observatories. Journal of Low Temperature Physics, 2012, 167, 236-241.	0.6	6
102	Small Pitch Transition-Edge Sensors with Broadband High Spectral Resolution for Solar Physics. Journal of Low Temperature Physics, 2012, 167, 168-175.	0.6	62
103	Development of Embedded Heatsinking Layers for Compact Arrays of X-Ray TES Microcalorimeters. IEEE Transactions on Applied Superconductivity, 2011, 21, 223-226.	1.1	15
104	Proximity effects and nonequilibrium superconductivity in transition-edge sensors. Physical Review B, 2011, 84, .	1.1	64
105	Progress on the Micro-X sounding rocket x-ray telescope: completion of flight hardware. Proceedings of SPIE, 2010, , .	0.8	6
106	The x-ray microcalorimeter spectrometer onboard of IXO. Proceedings of SPIE, 2010, , .	0.8	10
107	High-spectral resolution high-cadence imaging x-ray microcalorimeters for solar physics. , 2010, , .		10
108	A COMPARISON OF X-RAY AND MID-INFRARED SELECTION OF OBSCURED ACTIVE GALACTIC NUCLEI. Astrophysical Journal, 2010, 708, 584-597.	1.6	53

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109	THE ADIABATIC DEMAGNETIZATION REFRIGERATOR FOR THE MICRO-X SOUNDING ROCKET TELESCOPE. AIP Conference Proceedings, 2010, , .	0.3	2
110	The Detector and Readout Systems of the Micro-X High Resolution Microcalorimeter X-Ray Imaging Rocket. , 2009, , .		3
111	Heat Sinking, Crosstalk, and Temperature Uniformity for Large Close-Packed Microcalorimeter Arrays. IEEE Transactions on Applied Superconductivity, 2009, 19, 557-560.	1.1	8
112	Development of Position-Sensitive Transition-Edge Sensor X-Ray Detectors. IEEE Transactions on Applied Superconductivity, 2009, 19, 451-455.	1.1	20
113	Optimizing Transition-Edge Sensor Design for High Count-Rate Applications. , 2009, , .		3
114	Real-Time Data Processing for X-Ray Spectroscopy. AIP Conference Proceedings, 2009, , .	0.3	7
115	New Science Case for the Micro-X High Energy Resolution Microcalorimeter X-ray Imaging Rocket. , 2009, , .		1
116	Large-Absorber TES X-ray Microcalorimeters and the Micro-X Detector Array. , 2009, , .		10
117	Extended focal-plane array development for the International X-ray Observatory. , 2009, , .		1
118	Experimental Results and Modeling of Low-Heat-Capacity TES Microcalorimeters for Soft-X-ray Spectroscopy. AIP Conference Proceedings, 2009, , .	0.3	6
119	Optical/UV and X-Ray Microwave Kinetic Inductance Strip Detectors. Journal of Low Temperature Physics, 2008, 151, 537-543.	0.6	24
120	Development of arrays of position-sensitive microcalorimeters for Constellation-X. Proceedings of SPIE, 2008, , .	0.8	11
121	Multiplexed readout of uniform arrays of TES x-ray microcalorimeters suitable for Constellation-X. Proceedings of SPIE, 2008, , .	0.8	23
122	The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Program. III. Optical Spectroscopy. Astrophysical Journal, Supplement Series, 2006, 165, 19-56.	3.0	53
123	Position sensitive x-ray spectrophotometer using microwave kinetic inductance detectors. Applied Physics Letters, 2006, 89, 222507.	1.5	76
124	A Galaxy at $z = 6.545$ and Constraints on the Epoch of Reionization. Astrophysical Journal, 2005, 619, 12-18.	1.6	69
125	The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Program. II. Optical Imaging. Astrophysical Journal, Supplement Series, 2005, 156, 35-45.	3.0	15
126	The Serendipitous Extragalactic X-ray Source Identification Program. I. Characteristics of the Hard X-ray Sample. Astrophysical Journal, 2003, 596, 944-956.	1.6	49

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127	Optical and Near-Infrared Spectroscopy of a High-Redshift Hard X-Ray-emitting Spiral Galaxy. <i>Astronomical Journal</i> , 2003, 125, 1236-1246.	1.9	31
128	Correcting Energy Estimation Errors Due to Finite Sampling of Transition-Edge Sensor Data. <i>Journal of Low Temperature Physics</i> , 0, , 1.	0.6	2