

Caroline A Kilbourne

List of Publications by Year in descending order

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76
papers

2,338
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257357

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times ranked

1614
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	Performance of a Broad-Band, High-Resolution, Transition-Edge Sensor Spectrometer for X-ray Astrophysics. <i>IEEE Transactions on Applied Superconductivity</i> , 2021, 31, 1-6.	1.1	22
4	Mitigation of Finite Bandwidth Effects in Time-Division-Multiplexed SQUID Readout of TES Arrays. <i>IEEE Transactions on Applied Superconductivity</i> , 2021, 31, 1-5.	1.1	8
5	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
6	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
7	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
8	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
9	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
10	Quantum Efficiency Study and Reflectivity Enhancement of Au/Bi Absorbers. <i>Journal of Low Temperature Physics</i> , 2020, 199, 393-400.	0.6	8
11	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
12	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
13	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
14	Thermal fluctuation noise in Mo/Au superconducting transition-edge sensor microcalorimeters. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	22
15	Demonstration of Athena X-IFU Compatible 40-Row Time-Division-Multiplexed Readout. <i>IEEE Transactions on Applied Superconductivity</i> , 2019, 29, 1-5.	1.1	32
16	Multiabsorber transition-edge sensors for x-ray astronomy. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2019, 5, 1.	1.0	18
17	Effects of Normal Metal Features on Superconducting Transition-Edge Sensors. <i>Journal of Low Temperature Physics</i> , 2018, 193, 231-240.	0.6	22
18	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

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19	Study of Dissipative Losses in AC-Biased Mo/Au Bilayer Transition-Edge Sensors. Journal of Low Temperature Physics, 2018, 193, 356-364.	0.6	12
20	Measurements of resonant scattering in the Perseus Cluster core with Hitomi SXS. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	29
21	Performance of an X-ray Microcalorimeter with a 240 \hat{A} m Absorber and a 50 \hat{A} m TES Bilayer. Journal of Low Temperature Physics, 2018, 193, 337-343.	0.6	33
22	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
23	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	21
24	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
25	Concept of the X-ray Astronomy Recovery Mission. , 2018, , .		85
26	The ATHENA x-ray integral field unit (X-IFU). , 2018, , .		120
27	High count-rate study of two TES x-ray microcalorimeters with different transition temperatures. Superconductor Science and Technology, 2017, 30, 104005.	1.8	0
28	The quiescent intracluster medium in the core of the Perseus cluster. Nature, 2016, 535, 117-121.	13.7	348
29	Characterization of an atomic hydrogen source for charge exchange experiments. Review of Scientific Instruments, 2016, 87, 11E516.	0.6	2
30	In-orbit operation of the ASTRO-H SXS. , 2016, , .		15
31	The Athena X-ray Integral Field Unit (X-IFU). Proceedings of SPIE, 2016, , .	0.8	88
32	Calibration of the microcalorimeter spectrometer on-board the Hitomi (Astro-H) observatory (invited). Review of Scientific Instruments, 2016, 87, 11D503.	0.6	0
33	LABORATORY MEASUREMENTS OF THE K-SHELL TRANSITION ENERGIES IN L-SHELL IONS OF SI AND S. Astrophysical Journal, 2016, 830, 26.	1.6	29
34	The Astro-H high resolution soft x-ray spectrometer. Proceedings of SPIE, 2016, , .	0.8	51
35	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. , 2016, , .		8
36	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

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37	Temporal Gain Correction for X-ray Calorimeter Spectrometers. Journal of Low Temperature Physics, 2016, 184, 498-504.	0.6	16
38	The design, implementation, and performance of the Atrio-H SXS calorimeter array and anti-coincidence detector. , 2016, , .		15
39	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
40	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
41	The ASTRO-H X-ray astronomy satellite. Proceedings of SPIE, 2014, , .	0.8	45
42	Soft x-ray spectrometer (SXS): the high-resolution cryogenic spectrometer onboard ASTRO-H. Proceedings of SPIE, 2014, , .	0.8	29
43	Observation of highly disparate K -shell x-ray spectra produced by charge exchange with bare mid-Z ions. Physical Review A, 2014, 89, .	1.0	12
44	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
45	Characterization and Performance of Magnetic Calorimeters for Applications in X-ray Spectroscopy. Journal of Low Temperature Physics, 2014, 176, 617-623.	0.6	19
46	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
47	Development of TES Microcalorimeter Arrays for the Micro-X Sounding Rocket Experiment. IEEE Transactions on Applied Superconductivity, 2013, 23, 2101705-2101705.	1.1	4
48	Implications of weak-link behavior on the performance of Mo/Au bilayer transition-edge sensors. Journal of Applied Physics, 2013, 114, .	1.1	49
49	Kilopixel X-ray Microcalorimeter Arrays for Astrophysics: Device Performance and Uniformity. Journal of Low Temperature Physics, 2012, 167, 732-740.	0.6	14
50	Implications of Weak Link Effects on Thermal Characteristics of Transition-Edge Sensors. Journal of Low Temperature Physics, 2012, 167, 121-128.	0.6	10
51	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
52	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
53	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
54	Proximity effects and nonequilibrium superconductivity in transition-edge sensors. Physical Review B, 2011, 84, .	1.1	64

#	ARTICLE	IF	CITATIONS
55	A brief overview of the Fusion and Astrophysics Data and Diagnostic Calibration Facility. Proceedings of SPIE, 2010, , .	0.8	10
56	The ASTRO-H Mission. Proceedings of SPIE, 2010, , .	0.8	125
57	The detector subsystem for the SXS instrument on the ASTRO-H Observatory. Proceedings of SPIE, 2010, , .	0.8	21
58	The ITER core imaging x-ray spectrometer: X-ray calorimeter performance. Review of Scientific Instruments, 2010, 81, 10E323.	0.6	19
59	The high-resolution x-ray microcalorimeter spectrometer system for the SXS on ASTRO-H. Proceedings of SPIE, 2010, , .	0.8	50
60	Survey of the K-shell emission from heliumlike ions with an X-ray microcalorimeter. Journal of Physics: Conference Series, 2009, 163, 012022.	0.3	5
61	Evolution of X-ray calorimeter spectrometers at the Lawrence Livermore Electron Beam Ion Trap. Journal of Physics: Conference Series, 2009, 163, 012105.	0.3	8
62	Application of Low-Temperature Detectors to High-Resolution X-ray Spectroscopy. AIP Conference Proceedings, 2009, , .	0.3	5
63	Experimental Results and Modeling of Low-Heat-Capacity TES Microcalorimeters for Soft-X-ray Spectroscopy. AIP Conference Proceedings, 2009, , .	0.3	6
64	The Astro-H Soft X-ray Spectrometer (SXS). AIP Conference Proceedings, 2009, , .	0.3	6
65	Studies of Thermal Diffusion in Planar Absorber Designs for the Micro-X Rocket. Journal of Low Temperature Physics, 2008, 151, 424-429.	0.6	2
66	The EBIT Calorimeter Spectrometer: A New Permanent User Facility at the LLNL EBIT. Journal of Low Temperature Physics, 2008, 151, 1061-1066.	0.6	25
67	The XRS microcalorimeter spectrometer at the Livermore electron beam ion trap. Canadian Journal of Physics, 2008, 86, 231-240.	0.4	56
68	Performance of the EBIT calorimeter spectrometer. Review of Scientific Instruments, 2008, 79, 10E307.	0.6	29
69	The Suzaku High Resolution X-Ray Spectrometer. Publication of the Astronomical Society of Japan, 2007, 59, S77-S112.	1.0	123
70	Electron Impact Excitation Cross Section Measurement for $n=3$ to $n=2$ Line Emission in Fe $17+$ to Fe $23+$. Astrophysical Journal, 2006, 646, 653-665.	1.6	26
71	Energy-Dependent Excitation Cross Section Measurements of the Diagnostic Lines of Fe XVII. Physical Review Letters, 2006, 96, 253201.	2.9	67
72	Excitation Cross Section Measurement for $n=3$ to $n=2$ Line Emission in Fe $20+$ to Fe $23+$. Astrophysical Journal, 2005, 618, 1086-1094.	1.6	18

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73	The Astro-E2 X-ray spectrometer/EBIT microcalorimeter x-ray spectrometer. Review of Scientific Instruments, 2004, 75, 3772-3774.	0.6	71
74	Impedance measurements and modeling of a transition-edge-sensor calorimeter. Review of Scientific Instruments, 2004, 75, 1283-1289.	0.6	101
75	GEANT modeling of the low-earth-orbit cosmic-ray background for the Astro-E2 XRS instrument. , 2004, , .		4
76	Correcting Energy Estimation Errors Due to Finite Sampling of Transition-Edge Sensor Data. Journal of Low Temperature Physics, 0, , 1.	0.6	2