

Caroline A Kilbourne

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2138173/publications.pdf>

Version: 2024-02-01

76
papers

2,338
citations

257357

24
h-index

243529

44
g-index

76
all docs

76
docs citations

76
times ranked

1614
citing authors

#	ARTICLE	IF	CITATIONS
1	The quiescent intracluster medium in the core of the Perseus cluster. <i>Nature</i> , 2016, 535, 117-121.	13.7	348
2	The ASTRO-H Mission. <i>Proceedings of SPIE</i> , 2010, , .	0.8	125
3	The Suzaku High Resolution X-Ray Spectrometer. <i>Publication of the Astronomical Society of Japan</i> , 2007, 59, S77-S112.	1.0	123
4	The ATHENA x-ray integral field unit (X-IFU). , 2018, , .		120
5	Impedance measurements and modeling of a transition-edge-sensor calorimeter. <i>Review of Scientific Instruments</i> , 2004, 75, 1283-1289.	0.6	101
6	The Athena X-ray Integral Field Unit (X-IFU). <i>Proceedings of SPIE</i> , 2016, , .	0.8	88
7	Concept of the X-ray Astronomy Recovery Mission. , 2018, , .		85
8	The Astro-E2 X-ray spectrometer/EBIT microcalorimeter x-ray spectrometer. <i>Review of Scientific Instruments</i> , 2004, 75, 3772-3774.	0.6	71
9	Energy-Dependent Excitation Cross Section Measurements of the Diagnostic Lines of Fe XVII. <i>Physical Review Letters</i> , 2006, 96, 253201.	2.9	67
10	Proximity effects and nonequilibrium superconductivity in transition-edge sensors. <i>Physical Review B</i> , 2011, 84, .	1.1	64
11	Small Pitch Transition-Edge Sensors with Broadband High Spectral Resolution for Solar Physics. <i>Journal of Low Temperature Physics</i> , 2012, 167, 168-175.	0.6	62
12	The XRS microcalorimeter spectrometer at the Livermore electron beam ion trap. <i>Canadian Journal of Physics</i> , 2008, 86, 231-240.	0.4	56
13	The Astro-H high resolution soft x-ray spectrometer. <i>Proceedings of SPIE</i> , 2016, , .	0.8	51
14	The high-resolution x-ray microcalorimeter spectrometer system for the SXS on ASTRO-H. <i>Proceedings of SPIE</i> , 2010, , .	0.8	50
15	Implications of weak-link behavior on the performance of Mo/Au bilayer transition-edge sensors. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	49
16	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
17	The ASTRO-H X-ray astronomy satellite. <i>Proceedings of SPIE</i> , 2014, , .	0.8	45
18	Advances in Small Pixel TES-Based X-Ray Microcalorimeter Arrays for Solar Physics and Astrophysics. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 2100705-2100705.	1.1	37

#	ARTICLE	IF	CITATIONS
19	Fine pitch transition-edge sensor X-ray microcalorimeters with sub-eV energy resolution at 1.5â€‰keV. Applied Physics Letters, 2015, 107, .	1.5	34
20	Performance of an X-ray Microcalorimeter with a 240Â¼m Absorber and a 50Â¼m TES Bilayer. Journal of Low Temperature Physics, 2018, 193, 337-343.	0.6	33
21	Demonstration of Athena X-IFU Compatible 40-Row Time-Division-Multiplexed Readout. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	32
22	Performance of the EBIT calorimeter spectrometer. Review of Scientific Instruments, 2008, 79, 10E307.	0.6	29
23	Soft x-ray spectrometer (SXS): the high-resolution cryogenic spectrometer onboard ASTRO-H. Proceedings of SPIE, 2014, , .	0.8	29
24	LABORATORY MEASUREMENTS OF THE K-SHELL TRANSITION ENERGIES IN L-SHELL IONS OF SI AND S. Astrophysical Journal, 2016, 830, 26.	1.6	29
25	Measurements of resonant scattering in the Perseus Cluster core with Hitomi SXS. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	29
26	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
27	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
28	Effects of Normal Metal Features on Superconducting Transition-Edge Sensors. Journal of Low Temperature Physics, 2018, 193, 231-240.	0.6	22
29	Thermal fluctuation noise in Mo/Au superconducting transition-edge sensor microcalorimeters. Journal of Applied Physics, 2019, 125, .	1.1	22
30	Performance of a Broad-Band, High-Resolution, Transition-Edge Sensor Spectrometer for X-ray Astrophysics. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-6.	1.1	22
31	The detector subsystem for the SXS instrument on the ASTRO-H Observatory. Proceedings of SPIE, 2010, , .	0.8	21
32	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	21
33	The ITER core imaging x-ray spectrometer: X-ray calorimeter performance. Review of Scientific Instruments, 2010, 81, 10E323.	0.6	19
34	Characterization and Performance of Magnetic Calorimeters for Applications in X-ray Spectroscopy. Journal of Low Temperature Physics, 2014, 176, 617-623.	0.6	19
35	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
36	Multiabsorber transition-edge sensors for x-ray astronomy. Journal of Astronomical Telescopes, Instruments, and Systems, 2019, 5, 1.	1.0	18

#	ARTICLE	IF	CITATIONS
37	Temporal Gain Correction for X-ray Calorimeter Spectrometers. Journal of Low Temperature Physics, 2016, 184, 498-504.	0.6	16
38	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
39	In-orbit operation of the ASTRO-H SXS. , 2016, , .		15
40	The design, implementation, and performance of the Atro-H SXS calorimeter array and anti-coincidence detector. , 2016, , .		15
41	Kilopixel X-ray Microcalorimeter Arrays for Astrophysics: Device Performance and Uniformity. Journal of Low Temperature Physics, 2012, 167, 732-740.	0.6	14
42	Observation of highly disparate K -shell x-ray spectra produced by charge exchange with bare mid- Z ions. Physical Review A, 2014, 90, .	1.0	12
43	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
44	First Operation of TES Microcalorimeters in Space with the Micro-X Sounding Rocket. Journal of Low Temperature Physics, 2020, 199, 1062-1071.	0.6	12
45	Extended Line Spread Function of TES Microcalorimeters With Au/Bi Absorbers. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	11
46	A brief overview of the Fusion and Astrophysics Data and Diagnostic Calibration Facility. Proceedings of SPIE, 2010, , .	0.8	10
47	Implications of Weak Link Effects on Thermal Characteristics of Transition-Edge Sensors. Journal of Low Temperature Physics, 2012, 167, 121-128.	0.6	10
48	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
49	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
50	Energy Calibration of High-Resolution X-Ray TES Microcalorimeters With 3 eV Optical Photons. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-4.	1.1	9
51	High-resolution Laboratory Measurements of K-shell X-Ray Line Polarization and Excitation Cross Sections in Helium-like S XV Ions. Astrophysical Journal, 2021, 914, 34.	1.6	9
52	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
53	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. , 2016, , .		8
54	Highly charged ions in a new era of high resolution X-ray astrophysics. X-Ray Spectrometry, 2020, 49, 218-233.	0.9	8

#	ARTICLE	IF	CITATIONS
55	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
56	Quantum Efficiency Study and Reflectivity Enhancement of Au/Bi Absorbers. <i>Journal of Low Temperature Physics</i> , 2020, 199, 393-400.	0.6	8
57	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
58	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
59	In-flight verification of the calibration and performance of the ASTRO-H (Hitomi) Soft X-ray Spectrometer. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2018, 4, 1.	1.0	7
60	Experimental Results and Modeling of Low-Heat-Capacity TES Microcalorimeters for Soft-X-ray Spectroscopy. <i>AIP Conference Proceedings</i> , 2009, , .	0.3	6
61	The Astro-H Soft X-ray Spectrometer (SXS). <i>AIP Conference Proceedings</i> , 2009, , .	0.3	6
62	Development of a TES-Based Anti-coincidence Detector for Future x-Ray Observatories. <i>Journal of Low Temperature Physics</i> , 2012, 167, 236-241.	0.6	6
63	Survey of the K-shell emission from heliumlike ions with an X-ray microcalorimeter. <i>Journal of Physics: Conference Series</i> , 2009, 163, 012022.	0.3	5
64	Application of Low-Temperature Detectors to High-Resolution X-ray Spectroscopy. <i>AIP Conference Proceedings</i> , 2009, , .	0.3	5
65	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
66	GEANT modeling of the low-earth-orbit cosmic-ray background for the Astro-E2 XRS instrument. , 2004, , .		4
67	Development of TES Microcalorimeter Arrays for the Micro-X Sounding Rocket Experiment. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 2101705-2101705.	1.1	4
68	Large Area Transition Edge Sensor X-ray Microcalorimeters for Diffuse X-ray Background Studies. <i>Journal of Low Temperature Physics</i> , 2014, 176, 331-336.	0.6	4
69	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
70	Characterization of a Prototype TES-Based Anti-coincidence Detector for Use with Future X-ray Calorimeter Arrays. <i>Journal of Low Temperature Physics</i> , 2016, 184, 23-29.	0.6	3
71	Studies of Thermal Diffusion in Planar Absorber Designs for the Micro-X Rocket. <i>Journal of Low Temperature Physics</i> , 2008, 151, 424-429.	0.6	2
72	Characterization of an atomic hydrogen source for charge exchange experiments. <i>Review of Scientific Instruments</i> , 2016, 87, 11E516.	0.6	2

#	ARTICLE	IF	CITATIONS
73	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
74	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
75	Calibration of the microcalorimeter spectrometer on-board the Hitomi (Astro-H) observatory (invited). <i>Review of Scientific Instruments</i> , 2016, 87, 11D503.	0.6	0
76	High count-rate study of two TES x-ray microcalorimeters with different transition temperatures. <i>Superconductor Science and Technology</i> , 2017, 30, 104005.	1.8	0