

Karim S Karim

List of Publications by Year in descending order

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all docs

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59
times ranked

1017
citing authors

#	ARTICLE	IF	CITATIONS
1	Amorphous and Polycrystalline Photoconductors for Direct Conversion Flat Panel X-Ray Image Sensors. <i>Sensors</i> , 2011, 11, 5112-5157.	3.8	372
2	Investigation of Hole-Blocking Contacts for High-Conversion-Gain Amorphous Selenium Detectors for X-Ray Imaging. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 2403-2409.	3.0	47
3	Measurement of UV from a Microplasma by a Microfabricated Amorphous Selenium Detector. <i>IEEE Transactions on Electron Devices</i> , 2013, 60, 880-883.	3.0	37
4	Lateral metal-semiconductor-metal photodetectors based on amorphous selenium. <i>Applied Physics Letters</i> , 2009, 95, 013505.	3.3	35
5	Direct-Conversion CMOS X-Ray Imager With $5.6\text{-}\mu\text{m}$ \times $6.25\text{-}\mu\text{m}$ Pixels. <i>IEEE Electron Device Letters</i> , 2015, 36, 481-483.	3.9	34
6	Extending the geopolitical supply risk method: material substitutability indicators applied to electric vehicles and dental X-ray equipment. <i>International Journal of Life Cycle Assessment</i> , 2018, 23, 2024-2042.	4.7	32
7	Low Dark Current Amorphous Silicon Metal-Semiconductor-Metal Photodetector for Digital Imaging Applications. <i>IEEE Electron Device Letters</i> , 2014, 35, 235-237.	3.9	27
8	Two-Transistor Active Pixel Sensor Readout Circuits in Amorphous Silicon Technology for High-Resolution Digital Imaging Applications. <i>IEEE Transactions on Electron Devices</i> , 2008, 55, 2121-2128.	3.0	24
9	An a-Si Active Pixel Sensor (APS) Array for Medical X-ray Imaging. <i>IEEE Transactions on Electron Devices</i> , 2010, 57, 3020-3026.	3.0	24
10	Low Dark-Current Lateral Amorphous-Selenium Metal-Semiconductor-Metal Photodetector. <i>IEEE Electron Device Letters</i> , 2011, 32, 1263-1265.	3.9	21
11	Fast Lateral Amorphous-Selenium Metal-Semiconductor-Metal Photodetector With High Blue-to-Ultraviolet Responsivity. <i>IEEE Transactions on Electron Devices</i> , 2010, 57, 1953-1958.	3.0	19
12	Digital X-Ray Imaging Using Avalanche a-Se Photoconductor. <i>IEEE Sensors Journal</i> , 2010, 10, 347-352.	4.7	19
13	Spatiotemporal Monte Carlo transport methods in x-ray semiconductor detectors: Application to pulse-height spectroscopy in a-Se. <i>Medical Physics</i> , 2011, 39, 308-319.	3.0	19
14	Characterization of Short-Wavelength-Selective a-Si:H MSM Photoconductors for Large-Area Digital-Imaging Applications. <i>IEEE Transactions on Electron Devices</i> , 2008, 55, 337-342.	3.0	17
15	Design and feasibility of active matrix flat panel detector using avalanche amorphous selenium for protein crystallography. <i>Medical Physics</i> , 2008, 35, 4324-4332.	3.0	17
16	Direct-Conversion X-Ray Detector Using Lateral Amorphous Selenium Structure. <i>IEEE Sensors Journal</i> , 2011, 11, 505-509.	4.7	17
17	Enhanced Dark Current Suppression of Amorphous Selenium Detector With Use of IGZO Hole Blocking Layer. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 3355-3357.	3.0	15
18	UV-Enhanced a-Si:H Metal-Semiconductor-Metal Photodetector. <i>IEEE Electron Device Letters</i> , 2008, 29, 1007-1010.	3.9	14

#	ARTICLE	IF	CITATIONS
19	Wireless <italic>LC</italic>-Type Passive Humidity Sensor Using Large-Area RF Magnetron Sputtered ZnO Films. IEEE Transactions on Electron Devices, 2018, 65, 3447-3453.	3.0	12
20	LTPS Active Pixel Circuit With Threshold Voltage Compensation for X-Ray Imaging Applications. IEEE Transactions on Electron Devices, 2019, 66, 4216-4220.	3.0	12
21	High-energy micrometre-scale pixel direct conversion X-ray detector. Journal of Synchrotron Radiation, 2021, 28, 1081-1089.	2.4	11
22	Two-Transistor Active Pixel Sensor for High Resolution Large Area Digital X-ray Imaging. , 2007, , .		10
23	Nanocrystalline Silicon Lateral MSM Photodetector for Infrared Sensing Applications. IEEE Transactions on Electron Devices, 2018, 65, 584-590.	3.0	9
24	Use of Pulse-Height Spectroscopy to Characterize the Hole Conduction Mechanism of a Polyimide Blocking Layer Used in Amorphous-Selenium Radiation Detectors. IEEE Transactions on Electron Devices, 2020, 67, 633-639.	3.0	9
25	Amorphous-Selenium-Based Three-Terminal X-Ray Detector With a Gate. IEEE Electron Device Letters, 2011, 32, 782-784.	3.9	8
26	Recombination models for spatio-temporal Monte Carlo transport of interacting carriers in semiconductors. Applied Physics Letters, 2011, 98, 242111.	3.3	7
27	K-Edge Imaging Using Dual-Layer and Single-Layer Large Area Flat Panel Imagers. IEEE Transactions on Nuclear Science, 2012, 59, 1856-1861.	2.0	7
28	Lateral Organic Semiconductor Photodetector. Part I: Use of an Insulating Layer for Low Dark Current. IEEE Transactions on Electron Devices, 2014, 61, 3465-3471.	3.0	7
29	Recent Progress in the Development of a-Se/CMOS Sensors for X-ray Detection. Quantum Beam Science, 2021, 5, 29.	1.2	7
30	X-Ray Detection Using a Two-Transistor Active Pixel Sensor Array Coupled to an a-Se X-Ray Photoconductor. IEEE Sensors Journal, 2009, 9, 51-56.	4.7	6
31	Silicon X-Ray Detector With Integrated Thin-Film Transistor for Biomedical Applications. IEEE Electron Device Letters, 2010, 31, 147-149.	3.9	6
32	Low Temperature a-Si:H Pixel Circuits for Mechanically Flexible AMOLED Displays. Materials Research Society Symposia Proceedings, 2003, 769, 221.	0.1	4
33	Improving Amorphous Selenium Photodetector Performance Using an Organic Semiconductor. Key Engineering Materials, 0, 543, 451-454.	0.4	4
34	Effect of burst and recombination models for Monte Carlo transport of interacting carriers in a-Se x-ray detectors on Swank noise. Medical Physics, 2013, 41, 011904.	3.0	4
35	Characterization of Optically Sensitive Amorphous Selenium Photodetector at High Electric Fields. IEEE Transactions on Electron Devices, 2015, 62, 2364-2366.	3.0	4
36	Reactive Ion-Assisted Deposition of Cerium Oxide Hole-Blocking Contact for Leakage-Current Suppression in an Amorphous Selenium Multilayer Structure. IEEE Sensors Journal, 2015, 15, 3871-3876.	4.7	4

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37	Theoretical and Monte Carlo optimization of a stacked three-layer flat-panel x-ray imager for applications in multi-spectral diagnostic medical imaging. Proceedings of SPIE, 2016, 9783, .	0.8	4
38	a-Si:H TFT-Silicon Hybrid Low-Energy X-Ray Detector. IEEE Transactions on Electron Devices, 2017, 64, 1624-1629.	3.0	4
39	Characterization of Lag Signal in Amorphous Selenium Detectors. IEEE Transactions on Electron Devices, 2016, 63, 704-709.	3.0	3
40	Lateral Organic Semiconductor Photodetector: Effect of Electrode Spacing. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 1-7.	2.9	3
41	MTF and DQE enhancement using an apodized aperture x-ray detector design. Medical Physics, 2017, 44, 4525-4535.	3.0	3
42	X-Ray Dosimetry During Low-Intensity Femtosecond Laser Ablation of Molybdenum in Ambient Conditions. IEEE Transactions on Nuclear Science, 2017, 64, 2519-2522.	2.0	3
43	A Monolithic Amorphous-Selenium/CMOS Single-Photon-Counting X-Ray Detector. IEEE Transactions on Electron Devices, 2021, 68, 1746-1752.	3.0	3
44	Intelligent Pixel Architectures for Digital Medical Imaging Applications. ECS Transactions, 2007, 8, 289-293.	0.5	2
45	Study of the transient response of PI/a-Se photodetectors for indirect conversion medical imaging. , 2012, , .		2
46	Model-Based Initial Bias (MIB): Toward a Single-Iteration Optical Proximity Correction. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1630-1639.	2.7	2
47	Performance of amorphous selenium based unipolar charge sensing detector for photon-counting X-ray imaging. , 2020, , .		2
48	Structural and electrical characteristics of nanocrystalline silicon prepared by hot-wire chemical vapor deposition on polymer substrates. Thin Solid Films, 2008, 516, 7418-7421.	1.8	1
49	Charge-Gated Thin-Film Transistors for High Resolution Digital Imaging Applications. IEEE Electron Device Letters, 2008, 29, 859-862.	3.9	1
50	Selenium coated CMOS passive pixel array for medical imaging. Proceedings of SPIE, 2011, , .	0.8	1
51	System design of a low-cost digital x-ray detector. , 2014, , .		1
52	UV Organic Semiconductor Photoconductor with Low Dark Current at High Electric Field. Materials Research Society Symposia Proceedings, 2014, 1698, 53.	0.1	1
53	P‚: A Full Screen Biometric Identification Approach for OLED Displays by Using Near-Infrared OLED. Digest of Technical Papers SID International Symposium, 2020, 51, 1855-1858.	0.3	1
54	10.1063/1.3599602.1. , 2011, , .		1

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55	Photon-Quantum-Noise-Limited Pixel Architecture in Amorphous-Silicon Technology for Large-Area Digital Imaging Applications. IEEE Transactions on Electron Devices, 2012, 59, 3017-3023.	3.0	0
56	Technical Note: Detective quantum efficiency simulation of aâ€Se imaging detectors using ARTEMIS. Medical Physics, 2017, 44, 4035-4039.	3.0	0
57	A Monolithic Amorphous-Selenium/CMOS Visible-Light Imager With Sub-9-Î¼m Pixel Pitch and Extended Full-Well Capacity. IEEE Sensors Journal, 2021, 21, 339-346.	4.7	0
58	Improving adhesion quality of SU-8 to gold thin film for absorption grating fabrication in x-ray phase-contrast imaging. , 2022, , .		0
59	A novel multi-layer grating structure for x-ray phase-contrast imaging. , 2022, , .		0