

# Michael Fiederle

## List of Publications by Year in descending order

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249298

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134  
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134  
docs citations

134  
times ranked

1787  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Te Inclusion Striations in (Cd,Zn)Te Crystals Grown by Traveling Heater Method. Crystals, 2021, 11, 649.	1.0	6
2	Effective neutron detection using vertical-type BGaN diodes. Journal of Applied Physics, 2021, 130, .	1.1	5
3	Overview of GaAs und CdTe Pixel Detectors Using Medipix Electronics. Crystal Research and Technology, 2020, 55, 2000021.	0.6	15
4	Investigation of CdTe, GaAs, Se and Si as Sensor Materials for Mammography. IEEE Transactions on Medical Imaging, 2020, 39, 3766-3778.	5.4	11
5	Investigations on performance and spectroscopic capabilities of a 3Âmm CdTe Timepix detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 977, 164308.	0.7	10
6	Investigation of growth parameters for ScAlN-barrier HEMT structures by plasma-assisted MBE. Japanese Journal of Applied Physics, 2019, 58, SC1045.	0.8	42
7	Investigation of fragment reconstruction accuracy with in situ few-view flash x-ray high-speed computed tomography (HSCT). Measurement Science and Technology, 2019, 30, 065401.	1.4	2
8	CdTe layer structures for X-ray and gamma-ray detection directly grown on the Medipix readout-chip by MBE. Journal of Crystal Growth, 2017, 477, 114-117.	0.7	7
9	Investigation of MBE grown polycrystalline CdTe films on the Medipix readout chip. Journal of Crystal Growth, 2017, 468, 230-234.	0.7	2
10	Crystal growth of Cd <sub>1-x</sub> Zn <sub>x</sub> Te by the traveling heater method in microgravity on board of Foton-M4 spacecraft. Journal of Crystal Growth, 2017, 457, 262-264.	0.7	6
11	Optimization of the HgI <sub>2</sub> Crystal Preparation for Application as a Radiation Semiconductor Detector. Studies in Engineering and Technology, 2017, 5, 76.	0.2	1
12	Anomalous Lattice Dynamics of $\text{EuSi}_2$ . Role of Interfaces Unveiled. Physical Review Letters, 2016, 117, 276101.	2.9	12
13	Analysis of the traveling heater method for the growth of cadmium telluride. Journal of Crystal Growth, 2016, 454, 45-58.	0.7	27
14	Identification of green pigments from fragments of Roman mural paintings of three Roman sites from north of Germania Superior. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	7
15	On the origin and nature of the grating interferometric dark-field contrast obtained with low-brilliance x-ray sources. Physics in Medicine and Biology, 2016, 61, 3427-3442.	1.6	21
16	Synchrotron-based scanning macro-X-ray fluorescence applied to fragments of Roman mural paintings. Microchemical Journal, 2016, 126, 438-445.	2.3	20
17	Thermal Stability Studies of DySi <sub>2</sub> Nanowires and Nanoislands by in Situ GISAXS. Journal of Physical Chemistry C, 2016, 120, 7365-7372.	1.5	0
18	Optimization of the Timepix chip to measurement of radon, thoron and their progenies. Applied Radiation and Isotopes, 2016, 107, 220-224.	0.7	3

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19	Applications of the Medipix3-CT in combination with iterative reconstruction techniques. Journal of Instrumentation, 2016, 11, C02085-C02085.	0.5	3
20	An investigation into the temporal stability of CdTe-based photon counting detectors during spectral micro-CT acquisitions. Biomedical Physics and Engineering Express, 2015, 1, 025205.	0.6	10
21	Reducing the formation of image artifacts during spectroscopic micro-CT acquisitions. Proceedings of SPIE, 2015, , .	0.8	0
22	Investigation of GaAs:Cr Timepix assemblies under high flux irradiation. Journal of Instrumentation, 2015, 10, C01047-C01047.	0.5	21
23	Performance of a Medipix3RX Spectroscopic Pixel Detector With a High Resistivity Gallium Arsenide Sensor. IEEE Transactions on Medical Imaging, 2015, 34, 707-715.	5.4	52
24	Characterization of a 2x3 Timepix assembly with a 500µm thick silicon sensor. Journal of Instrumentation, 2014, 9, C05037-C05037.	0.5	7
25	Energy weighted x-ray dark-field imaging. Optics Express, 2014, 22, 24507.	1.7	11
26	X-ray Bragg magnifier microscope as a linear shift invariant imaging system: image formation and phase retrieval. Optics Express, 2014, 22, 21508.	1.7	13
27	How spectroscopic x-ray imaging benefits from inter-pixel communication. Physics in Medicine and Biology, 2014, 59, 6195-6213.	1.6	56
28	Pooling optimal combinations of energy thresholds in spectroscopic CT. Proceedings of SPIE, 2014, , .	0.8	0
29	Chromium-compensated GaAs detector material and sensors. Journal of Instrumentation, 2014, 9, C07011-C07011.	0.5	16
30	The LAMBDA photon-counting pixel detector and high-Z sensor development. Journal of Instrumentation, 2014, 9, C12026-C12026.	0.5	28
31	Investigation of the luminescence, crystallographic and spatial resolution properties of LSO:Tb scintillating layers used for X-ray imaging applications. Radiation Measurements, 2014, 62, 28-34.	0.7	13
32	Preface. Radiation Protection Dosimetry, 2014, 160, 247-247.	0.4	0
33	Growth and structure characterization of EuSi <sub>2</sub> films and nanoislands on vicinal Si(001) surface. Journal of Crystal Growth, 2014, 407, 74-77.	0.7	9
34	A fast embedded readout system for large-area Medipix and Timepix systems. Journal of Instrumentation, 2014, 9, C05047-C05047.	0.5	0
35	Count rate linearity and spectral response of the Medipix3RX chip coupled to a 300µm silicon sensor under high flux conditions. Journal of Instrumentation, 2014, 9, C04028-C04028.	0.5	31
36	Charge Summing in Spectroscopic X-Ray Detectors With High-Z Sensors. IEEE Transactions on Nuclear Science, 2013, 60, 4713-4718.	1.2	79

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37	High Resolution and High Contrast Imaging With Thin $\text{SrI}_2$ -Scintillator Screens. IEEE Transactions on Nuclear Science, 2013, 60, 1619-1623.	1.2	3
38	High-resolution high-efficiency X-ray imaging system based on the in-line Bragg magnifier and the Medipix detector. Journal of Synchrotron Radiation, 2013, 20, 153-159.	1.0	22
39	Potential use of V-channel Ge(220) monochromators in X-ray metrology and imaging. Journal of Applied Crystallography, 2013, 46, 945-952.	1.9	8
40	The Medipix3RX: a high resolution, zero dead-time pixel detector readout chip allowing spectroscopic imaging. Journal of Instrumentation, 2013, 8, C02016-C02016.	0.5	228
41	Editorial Conference Comments by the Editors. IEEE Transactions on Nuclear Science, 2013, 60, 480-481.	1.2	0
42	High Resolution X-Ray Imaging with Thin $\text{SrI}_2$ -Scintillator Screens. Materials Research Society Symposia Proceedings, 2013, 1576, 1.	0.1	0
43	Dynamic defectoscopy with flat panel and CdTe Timepix X-ray detectors combined with an optical camera. Journal of Instrumentation, 2013, 8, C04009-C04009.	0.5	2
44	Medipix3 CT for material sciences. Journal of Instrumentation, 2013, 8, C01025-C01025.	0.5	16
45	Multimodal imaging with hybrid semiconductor detectors Timepix for an experimental MRI-SPECT system. Journal of Instrumentation, 2013, 8, C01022-C01022.	0.5	5
46	Investigating the feasibility of photon counting K-edge imaging at high x-ray fluxes using nonlinearity corrections. Medical Physics, 2013, 40, 101908.	1.6	13
47	High resolution 3D imaging of bump-bonds by means of synchrotron radiation computed laminography. Journal of Instrumentation, 2013, 8, C12029-C12029.	0.5	3
48	Saturation effects of CdTe photon counting detectors under high photon fluxes. Journal of Instrumentation, 2013, 8, C01026-C01026.	0.5	5
49	$\text{SrI}_2$ -Scintillators for Spectroscopy and X-Ray Imaging Applications. IEEE Transactions on Nuclear Science, 2012, 59, 2193-2195.	1.2	3
50	Imaging properties of small-pixel spectroscopic x-ray detectors based on cadmium telluride sensors. Physics in Medicine and Biology, 2012, 57, 6743-6759.	1.6	79
51	Synchrotron measurements of the energy response functions of CdTe Medipix2 MXR detectors with pixel pitches of 110 and 165 $\mu\text{m}$ . Journal of Instrumentation, 2012, 7, C12018-C12018.	0.5	2
52	Digital Spectroscopic System Based on Large Volume Stacked Coplanar Grid (Cd,Zn)Te Detectors. IEEE Transactions on Nuclear Science, 2012, 59, 1575-1581.	1.2	9
53	High resolution and high contrast imaging with thin $\text{SrI}_2$ -Scintillator Screens. , 2012, , .		0
54	First principle studies on molecular doping of ZnO thin films by $\text{As}_2\text{O}_3$ . Crystal Research and Technology, 2012, 47, 293-298.	0.6	0

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55	The Influence of Pixel Pitch and Electrode Pad Size on the Spectroscopic Performance of a Photon Counting Pixel Detector With CdTe Sensor. IEEE Transactions on Nuclear Science, 2011, 58, 17-25.	1.2	20
56	Characterization of the Medipix3 pixel readout chip. Journal of Instrumentation, 2011, 6, C01052-C01052.	0.5	44
57	Flatfield Correction Optimization for Energy Selective X-Ray Imaging With Medipix3. IEEE Transactions on Nuclear Science, 2011, 58, 3182-3189.	1.2	18
58	Bridgman Growth of SrI <sub>2</sub> . Materials Research Society Symposia Proceedings, 2011, 1341, 1.	0.1	0
59	Development of SrI <sub>2</sub> scintillators for spectroscopy and x-ray imaging applications. , 2011, , .		0
60	Pixel sensitivity variations in a CdTe-Medipix2 detector using poly-energetic x-rays. Journal of Instrumentation, 2011, 6, C01059-C01059.	0.5	34
61	Energy resolution and transport properties of CdTe-Timepix-Assemblies. Journal of Instrumentation, 2011, 6, C01058-C01058.	0.5	23
62	Medipix2 based CdTe microprobe for dental imaging. Journal of Instrumentation, 2011, 6, C12002-C12002.	0.5	3
63	A comparison of various strategies to equalize the lower energy thresholds of a CdTe Medipix2 hexa detector for X-ray imaging applications. Journal of Instrumentation, 2011, 6, C01074-C01074.	0.5	8
64	Investigation of crystallographic and detection properties of CdTe at the ANKA synchrotron light source. Journal of Instrumentation, 2011, 6, P10016-P10016.	0.5	10
65	Timepix background studies for double beta decay experiments. Journal of Instrumentation, 2011, 6, C11030-C11030.	0.5	5
66	On the energy response function of a CdTe Medipix2 Hexa detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 648, S265-S268.	0.7	15
67	In-line Bragg magnifier based on V-shaped germanium crystals. Journal of Synchrotron Radiation, 2011, 18, 753-760.	1.0	14
68	Background capabilities of pixel detectors for double beta decay measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 633, S210-S211.	0.7	2
69	Combined Medipix based imaging system with Si and CdTe sensor. , 2011, , .		3
70	X-ray based methods for 3D characterization of charge collection and homogeneity of sensors with the use of Timepix chip. , 2011, , .		1
71	SU-C-211-03: X-Ray Imaging Properties of Two Highly Granular Spectroscopic Pixel Detectors Intended for Small Animal Imaging. Medical Physics, 2011, 38, 3376-3376.	1.6	0
72	Elimination of rotation domains in ZnO thin films on c-plane Al <sub>2</sub> O <sub>3</sub> substrates. Journal of Crystal Growth, 2010, 312, 624-627.	0.7	16

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73	Dewetting During the Crystal Growth of (Cd,Zn)Te:In Under Microgravity. IEEE Transactions on Nuclear Science, 2009, 56, 1747-1751.	1.2	7
74	Investigation of Growth Conditions of CdTe Thick Films on Properties and Demands for X-Ray Detector Applications. IEEE Transactions on Nuclear Science, 2009, 56, 1768-1774.	1.2	5
75	Deposition of CdTe films under microgravity: Foton M3 mission. Crystal Research and Technology, 2009, 44, 1059-1066.	0.6	2
76	Piperazinium, Ethylenediammonium or 4,4'-Bipyridinium Halocuprates(I) by Cu <sup>II</sup> /Cu <sup>0</sup> Comproportionation. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2009, 635, 1139-1147.	0.6	51
77	Optimization of Medipix-2 Threshold Masks for Spectroscopic X-Ray Imaging. IEEE Transactions on Nuclear Science, 2009, 56, 1795-1799.	1.2	29
78	Growth of thick films CdTe from the vapor phase. Journal of Crystal Growth, 2008, 310, 2062-2066.	0.7	10
79	Distribution of zinc, resistivity, and photosensitivity in a vertical Bridgman grown Cd <sub>1-x</sub> Zn <sub>x</sub> Te ingot. Journal of Crystal Growth, 2008, 310, 3482-3487.	0.7	18
80	Doping, compensation, and photosensitivity of detector grade CdTe. Journal of Materials Research, 2008, 23, 1751-1757.	1.2	8
81	Dependence of the Sn <sup>0/2+</sup> charge state on the Fermi level in semi-insulating CdTe. Journal of Materials Research, 2007, 22, 3249-3254.	1.2	23
82	Deep level defects in CdTe materials studied by thermoelectric effect spectroscopy and photo-induced current transient spectroscopy. Semiconductor Science and Technology, 2007, 22, 537-542.	1.0	41
83	Growth of Thick Films CdTe From the Vapor Phase. IEEE Transactions on Nuclear Science, 2007, 54, 773-776.	1.2	3
84	Crystal Growth and Characterization of Detector Grade (Cd,Zn)Te Crystals. IEEE Transactions on Nuclear Science, 2007, 54, 769-772.	1.2	17
85	Medipix2: Processing and measurements of GaAs pixel detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 576, 23-26.	0.7	32
86	Performance characteristics of Frisch-ring CdZnTe detectors. IEEE Transactions on Nuclear Science, 2006, 53, 607-614.	1.2	48
87	Molecular beam epitaxy and doping of AlN at high growth temperatures. Journal Physics D: Applied Physics, 2006, 39, 4616-4620.	1.3	14
88	Comparative study of vertical gradient freeze grown CdTe with variable Sn concentration. Journal of Materials Research, 2006, 21, 1025-1032.	1.2	11
89	Deep level defect luminescence in cadmium selenide nano-crystals films. Journal of Crystal Growth, 2005, 280, 502-508.	0.7	45
90	Excitation Dependence of Steady-State Photoluminescence in CdSe Nanocrystal Films. Journal of Physical Chemistry B, 2005, 109, 15349-15354.	1.2	14

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91	Semi-insulating cadmium telluride at low impurity concentrations. Journal of Materials Research, 2004, 19, 405-408.	1.2	8
92	Dewetted growth and characterisation of high-resistivity CdTe. Journal of Crystal Growth, 2004, 267, 429-435.	0.7	35
93	Experimental study of non-stoichiometry in Cd <sub>1-x</sub> Zn <sub>x</sub> Te. Journal of Electronic Materials, 2004, 33, 719-723.	1.0	8
94	Dewetted growth of CdTe in microgravity (STS-95). Crystal Research and Technology, 2004, 39, 481-490.	0.6	22
95	The use of neutron diffraction in the quantitative characterization of dopant-dependent dynamical properties of semiconductors. Physica B: Condensed Matter, 2004, 350, E549-E552.	1.3	0
96	Combined photoluminescence study of substrate defects in Hg <sub>1-x</sub> Cd <sub>x</sub> Te/CdTe heterostructures. Journal of Crystal Growth, 2004, 262, 191-195.	0.7	7
97	Vapor pressure scanning of non-stoichiometry in Cd <sub>0.95</sub> Zn <sub>0.05</sub> Te. Journal of Crystal Growth, 2004, 270, 69-76.	0.7	11
98	Development of flip-chip bonding technology for (Cd,Zn)Te. IEEE Transactions on Nuclear Science, 2004, 51, 1799-1802.	1.2	13
99	Comparison of undoped and doped high resistivity CdTe and (Cd,Zn)Te detector Crystals. IEEE Transactions on Nuclear Science, 2004, 51, 1864-1868.	1.2	53
100	Vapour pressure investigation of CdZnTe. Journal of Alloys and Compounds, 2004, 371, 118-121.	2.8	27
101	Defect structure of Sn-doped CdTe. Journal of Electronic Materials, 2003, 32, 772-777.	1.0	24
102	Characterization of CdTe crystals grown by the Vertical Bridgman method. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 509, 70-75.	0.7	15
103	Characterization of CdTe:Zn:V crystals grown under microgravity conditions. Journal of Materials Research, 2002, 17, 3037-3041.	1.2	4
104	Identification of Cl and Na Impurities in Inclusions of a Vapor-grown CdTe Doped with Zn and Cl. Journal of Materials Research, 2002, 17, 1069-1073.	1.2	7
105	Correlation of resistivity with zinc content in a vapor grown (Cd,Zn)Te:Se. Applied Physics Letters, 2002, 81, 5153-5155.	1.5	11
106	Thermodynamic Properties of ZnTe in the Temperature Range 15-925 K. Physica Status Solidi (B): Basic Research, 2002, 229, 133-135.	0.7	18
107	P-T-X Phase Equilibrium in the Zn-Te System. Physica Status Solidi (B): Basic Research, 2002, 229, 137-140.	0.7	16
108	CdZnTe:Cl Crystals for X-Ray Computer Tomography Detectors. Physica Status Solidi (B): Basic Research, 2002, 229, 1073-1076.	0.7	6

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109	High-temperature heat capacity and thermodynamic functions of zinc telluride. <i>Thermochimica Acta</i> , 2002, 381, 133-138.	1.2	12
110	Defect structure of Ge-doped CdTe. <i>Journal of Crystal Growth</i> , 2002, 243, 77-86.	0.7	50
111	Low-temperature heat capacity of ZnTe. <i>Journal of Chemical Thermodynamics</i> , 2002, 34, 2041-2047.	1.0	15
112	Mass spectrometric study of the CdTe-ZnTe system. <i>Journal of Crystal Growth</i> , 2002, 240, 73-79.	0.7	25
113	High-temperature defect structure of Cd- and Te-rich CdTe. <i>IEEE Transactions on Nuclear Science</i> , 2002, 49, 1270-1274.	1.2	52
114	P-X phase equilibrium studies in ZnTe for crystal growth by the Markov method. <i>Solid State Sciences</i> , 2001, 3, 1241-1244.	0.8	15
115	Compensation in semi-intrinsic CdTe-based materials. , 2001, 4355, 238.		5
116	<title>Pure and deep-level doped semi-insulating CdTe</title>. , 2001, , .		2
117	Comparison of cadmium zinc telluride crystals grown by horizontal and vertical Bridgman and from the vapor phase. <i>Journal of Crystal Growth</i> , 2001, 231, 235-241.	0.7	24
118	State of the art of (Cd,Zn)Te as gamma detector. <i>Journal of Crystal Growth</i> , 1999, 197, 635-640.	0.7	86
119	Modified compensation model of CdTe. <i>Journal of Applied Physics</i> , 1998, 84, 6689-6692.	1.1	194
120	<title>Vapor crystal growth of CdTe under terrestrial and microgravity conditions</title>. , 1997, 3123, 2.		3
121	Compensation Mechanism in Vanadium and Gallium Doped CdTe and (Cd,Zn)Te. <i>Crystal Research and Technology</i> , 1997, 32, 1103-1113.	0.6	13
122	Growth of twin-free CdTe single crystals in a semi-closed vapour phase system. <i>Journal of Crystal Growth</i> , 1997, 174, 696-707.	0.7	25
123	Characterization of CdTe:Cl crystals grown under microgravity conditions by time dependent charge measurements (TDCM). <i>Journal of Crystal Growth</i> , 1996, 166, 245-250.	0.7	14
124	Radiation detector properties of CdTe <sub>0.9</sub> Se <sub>0.1</sub> :Cl crystals grown under microgravity in a rotating magnetic field. <i>Journal of Crystal Growth</i> , 1996, 166, 256-260.	0.7	28
125	Characterization of Ti and V doped CdTe by time dependent charge measurement (TDCM) and photoinduced current transient spectroscopy (PICTS). <i>Optical Materials</i> , 1995, 4, 214-218.	1.7	13
126	Investigation of CdTe:Cl grown from the vapour phase under microgravity conditions with time dependent charge measurements and photoinduced current transient spectroscopy. <i>Journal of Crystal Growth</i> , 1995, 146, 98-103.	0.7	19



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127	Closed tube vapour growth of CdTe:V and CdTe:Ti and its characterization. Journal of Crystal Growth, 1995, 146, 92-97.	0.7	11
128	Studies of the compensation mechanism in CdTe grown from the vapour phase. Journal of Crystal Growth, 1995, 146, 142-147.	0.7	30
129	Characterization of cadmium telluride crystals grown by different techniques from the vapour phase. Journal of Crystal Growth, 1995, 146, 125-129.	0.7	16
130	High resolution method for the analysis of admittance spectroscopy data. Journal of Applied Physics, 1995, 77, 3851-3857.	1.1	12
131	CdTe and CdTe <sub>0.9</sub> Se <sub>0.1</sub> crystals grown by the travelling heater method using a rotating magnetic field. Journal of Crystal Growth, 1994, 138, 161-167.	0.7	67
132	Comparison of CdTe, Cd <sub>0.9</sub> Zn <sub>0.1</sub> Te and CdTe <sub>0.9</sub> Se <sub>0.1</sub> crystals: application for $\hat{\Gamma}^3$ - and X-ray detectors. Journal of Crystal Growth, 1994, 138, 529-533.	0.7	91