

Celeste Fleta

List of Publications by Year in descending order

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115
papers

3,730
citations

279798

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128289

60
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116
all docs

116
docs citations

116
times ranked

5220
citing authors

#	ARTICLE	IF	CITATIONS
1	Microdosimetry performance of the first multi-arrays of 3D-cylindrical microdetectors. Scientific Reports, 2022, 12, .	3.3	7
2	Characterization of the Charge Collection Efficiency in Silicon 3-D-Detectors for Microdosimetry. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	5
3	Microdosimetry in low energy proton beam at therapeutic-equivalent fluence rate with silicon 3D-cylindrical microdetectors. Physics in Medicine and Biology, 2021, 66, 114001.	3.0	7
4	Beam-loss damage experiment on ATLAS-like silicon strip modules using an intense proton beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 958, 162838.	1.6	1
5	Electrical characterization of surface properties of the ATLAS17LS sensors after neutron, proton and gamma irradiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 983, 164456.	1.6	6
6	The ABC130 barrel module prototyping programme for the ATLAS strip tracker. Journal of Instrumentation, 2020, 15, P09004-P09004.	1.2	17
7	The European Joint Research Project UHDpulse “ Metrology for advanced radiotherapy using particle beams with ultra-high pulse dose rates. Physica Medica, 2020, 80, 134-150.	0.7	71
8	Humidity sensitivity of large area silicon sensors: Study and implications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 978, 164406.	1.6	3
9	Mapping the in-plane electric field inside irradiated diodes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 980, 164509.	1.6	1
10	Design and evaluation of large area strip sensor prototypes for the ATLAS Inner Tracker detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 981, 164536.	1.6	2
11	Silicon 3D Microdetectors for Microdosimetry in Hadron Therapy. Micromachines, 2020, 11, 1053.	2.9	16
12	Quality Assurance methodology for the ATLAS Inner Tracker strip sensor production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 981, 164521.	1.6	4
13	Microelectronic test structures for the development of a strip sensor technology for high energy physics experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 969, 163971.	1.6	2
14	Experimental validation of an analytical microdosimetric model based on Geant4-DNA simulations by using a silicon-based microdosimeter. Radiation Physics and Chemistry, 2020, 176, 109060.	2.8	5
15	Impact of charge collection efficiency and electronic noise on the performance of solid-state 3D microdetectors. Physics in Medicine and Biology, 2020, 65, 175004.	3.0	8
16	Microdosimetric Spectra Measurements on a Clinical Carbon Beam at Nominal Therapeutic Fluence Rate With Silicon Cylindrical Microdosimeters. IEEE Transactions on Nuclear Science, 2019, 66, 1840-1847.	2.0	12
17	Damages induced on ATLAS IBL modules by fast extracted and intense proton beam irradiation. Journal of Instrumentation, 2019, 14, C05024-C05024.	1.2	0
18	Mapping the depleted area of silicon diodes using a micro-focused X-ray beam. Journal of Instrumentation, 2019, 14, P03024-P03024.	1.2	3

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19	Testbeam studies on pick-up in sensors with embedded pitch adapters. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 924, 120-124.	1.6	1
20	Test beam evaluation of silicon strip modules for ATLAS phase-II strip tracker upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 924, 108-111.	1.6	3
21	Prototyping of petalets for the Phase-II upgrade of the silicon strip tracking detector of the ATLAS experiment. Journal of Instrumentation, 2018, 13, T03004-T03004.	1.2	1
22	RBE study using solid state microdosimetry in heavy ion therapy. Radiation Measurements, 2017, 106, 512-518.	1.4	14
23	Technological solutions for large area microstrip radiation silicon sensors for the LHC Upgrade. , 2017, , .		1
24	Prototyping of hybrids and modules for the forward silicon strip tracking detector for the ATLAS Phase-II upgrade. Journal of Instrumentation, 2017, 12, P05015-P05015.	1.2	4
25	Characterisation of strip silicon detectors for the ATLAS Phase-II Upgrade with a micro-focused X-ray beam. Journal of Instrumentation, 2016, 11, P07023-P07023.	1.2	3
26	Detailed studies of full-size ATLAS12 sensors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 167-173.	1.6	11
27	Sensors for the End-cap prototype of the Inner Tracker in the ATLAS Detector Upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 833, 226-232.	1.6	6
28	Microdosimetry with micro-pattern silicon devices. , 2016, , .		0
29	Embedded pitch adapters: A high-yield interconnection solution for strip sensors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 221-228.	1.6	6
30	Response of the REWARD detection system to the presence of a Radiological Dispersal Device. Radiation Measurements, 2016, 88, 20-32.	1.4	2
31	Measurement of carbon ion microdosimetric distributions with ultrathin 3D silicon diodes. Physics in Medicine and Biology, 2016, 61, 4036-4047.	3.0	17
32	Evaluation of the performance of irradiated silicon strip sensors for the forward detector of the ATLAS Inner Tracker Upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 207-212.	1.6	10
33	3D cylindrical silicon microdosimeters: fabrication, simulation and charge collection study. Journal of Instrumentation, 2015, 10, P10001-P10001.	1.2	20
34	Silicon-based three-dimensional microstructures for radiation dosimetry in hadrontherapy. Applied Physics Letters, 2015, 107, .	3.3	17
35	Response of the REWARD detection system to the presence of a Radiological Dispersal Device. , 2015, , .		0
36	Preliminary microdosimetric measurements with ultra-thin 3D silicon detectors of a 62 MeV proton beam. Journal of Instrumentation, 2015, 10, P01008-P01008.	1.2	16

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37	Ultra-Thin 3-D Detector: Charge Collection Characterization and Application for Microdosimetry. IEEE Transactions on Nuclear Science, 2014, 61, 3472-3478.	2.0	6
38	Microstructured silicon neutron detectors for security applications. Journal of Instrumentation, 2014, 9, C12006-C12006.	1.2	5
39	Fabrication and nuclear reactor tests of ultra-thin 3D silicon neutron detectors with a boron carbide converter. Journal of Instrumentation, 2014, 9, P04010-P04010.	1.2	8
40	Technology developments and first measurements of Low Gain Avalanche Detectors (LGAD) for high energy physics applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 765, 12-16.	1.6	232
41	SU-E-T-380: Particle Microdosimetry Study Based On 3D-Cylindrical Silicon Radiation Detectors. Medical Physics, 2014, 41, 312-312.	3.0	0
42	Analysis of displacement damage effects on MOS capacitors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 730, 91-94.	1.6	10
43	Embedded pitch adapters for the ATLAS Tracker Upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 178-181.	1.6	6
44	Beam test studies of 3D pixel sensors irradiated non-uniformly for the ATLAS forward physics detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 730, 28-32.	1.6	16
45	Recent results on 3D double sided detectors with slim edges. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 731, 198-200.	1.6	2
46	3D active edge silicon sensors: Device processing, yield and QA for the ATLAS-IBL production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 699, 18-21.	1.6	48
47	3D double sided detector fabrication at IMB-CNM. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 699, 27-30.	1.6	37
48	Neutron measurements with ultra-thin 3D silicon sensors in a radiotherapy treatment room using a Siemens PRIMUS linac. Physics in Medicine and Biology, 2013, 58, 3227-3242.	3.0	23
49	Analysis of edge and surface TCTs for irradiated 3D silicon strip detectors. Journal of Instrumentation, 2013, 8, P03002-P03002.	1.2	3
50	3D silicon sensors - Large area production, QA and development for the CERN ATLAS experiment pixel sensor upgrade. , 2012, , .		0
51	Design and fabrication of sensor prototypes for the end-cap tracker of the ATLAS upgrade. , 2012, , .		2
52	Prototype ATLAS IBL modules using the FE-I4A front-end readout chip. Journal of Instrumentation, 2012, 7, P11010-P11010.	1.2	113
53	Simulation of radiation tolerance of n-in-p slimedge detectors for close-to-beam experiments at HL-LHC. , 2012, , .		1
54	Study of surface effects in the operation of 3D microstrip detectors with ultra-thin silicon substrates. , 2012, , .		0

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55	Monte Carlo simulations of a microstructured silicon detector with high efficiency for thermal neutrons. Journal of Instrumentation, 2012, 7, T06003-T06003.	1.2	0
56	3D silicon sensors: Design, large area production and quality assurance for the ATLAS IBL pixel detector upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 694, 321-330.	1.6	87
57	Characterisation of Glasgow/CNM Double-Sided 3D Sensors. Physics Procedia, 2012, 37, 1016-1023.	1.2	0
58	Ultra-thin 3D silicon sensors for neutron detection. Journal of Instrumentation, 2012, 7, P03006-P03006.	1.2	27
59	Charged particle tracking with the Timepix ASIC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 661, 31-49.	1.6	50
60	Charge Collection Studies and Electrical Measurements of Heavily Irradiated 3D Double-Sided Sensors and Comparison to Planar Strip Detectors. IEEE Transactions on Nuclear Science, 2011, 58, 3370-3383.	2.0	14
61	Geant4 and MCNPX simulations of thermal neutron detection with planar silicon detectors. Journal of Instrumentation, 2011, 6, T09001-T09001.	1.2	21
62	First investigations of a silicon neutron detector with a carborane converter. Journal of Instrumentation, 2011, 6, P11001-P11001.	1.2	5
63	Precision scans of the Pixel cell response of double sided 3D Pixel detectors to pion and X-ray beams. Journal of Instrumentation, 2011, 6, P05002-P05002.	1.2	12
64	3D-FBK pixel sensors: Recent beam tests results with irradiated devices. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 650, 150-157.	1.6	7
65	Silicon detectors for the sLHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 658, 11-16.	1.6	21
66	Comparative measurements of highly irradiated n-in-p and p-in-n 3D silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 659, 272-281.	1.6	33
67	Results from the first prototype of large 3D active edge sensors. , 2011, , .		6
68	Measurements with Irradiated 3D Silicon Strip Detectors. Nuclear Physics, Section B, Proceedings Supplements, 2011, 215, 247-249.	0.4	2
69	3D silicon pixel sensors: Recent test beam results. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 628, 216-220.	1.6	9
70	Test beam results of 3D silicon pixel sensors for the ATLAS upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 638, 33-40.	1.6	20
71	3D Medipix2 detector characterization with a micro-focused X-ray beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 633, S114-S116.	1.6	7
72	Portable silicon neutron detector system. , 2011, , .		1

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73	Beam Test Measurements With Planar and 3D Silicon Strip Detectors Irradiated to sLHC Fluences. IEEE Transactions on Nuclear Science, 2011, 58, 1308-1314.	2.0	13
74	Ultra thin 3D silicon detector for plasma diagnostics at the ITER tokamak. , 2011, , .		2
75	Silicon planar detectors adapted to slow neutron detection. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2010, 23, 324-331.	1.9	5
76	Efficiency measurements for 3D silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 623, 180-182.	1.6	0
77	Beam Test Measurements With 3D-DDTC Silicon Strip Detectors on n-Type Substrate. IEEE Transactions on Nuclear Science, 2010, 57, 2987-2994.	2.0	37
78	Synchrotron Tests of a 3D Medipix2 X-Ray Detector. IEEE Transactions on Nuclear Science, 2010, 57, 387-394.	2.0	14
79	Charge collection studies of heavily irradiated 3D double-sided sensors. , 2009, , .		2
80	First Beam Test Characterisation of a 3D-stc Silicon Short Strip Detector. IEEE Transactions on Nuclear Science, 2009, 56, 3834-3839.	2.0	3
81	Silicon microstrip detectors in 3D technology for the sLHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 17-20.	1.6	0
82	Design, simulation, production and initial characterisation of 3D silicon detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 598, 67-70.	1.6	8
83	X-ray detection with 3D Medipix2 devices. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 89-91.	1.6	3
84	3D silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 234-237.	1.6	2
85	Charge sharing in double-sided 3D Medipix2 detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 412-415.	1.6	9
86	Synchrotron tests of 3D Medipix2 and TimePix X-ray detectors. , 2009, , .		3
87	Simulations of radiation-damaged 3D detectors for the Super-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 592, 16-25.	1.6	37
88	First double-sided 3-D detectors fabricated at CNM-IMB. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 592, 38-43.	1.6	110
89	The ATLAS Experiment at the CERN Large Hadron Collider. Journal of Instrumentation, 2008, 3, S08003-S08003.	1.2	1,752
90	Development of 3D detectors for very high luminosity colliders. , 2007, , .		0

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91	Pitch adaptors of the ATLAS-SCT Endcap detector modules. Journal of Instrumentation, 2007, 2, T10001-T10001.	1.2	1
92	Simulation and test of 3D silicon radiation detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 642-647.	1.6	13
93	P-spray implant optimization for the fabrication of n-in-p microstrip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 573, 8-11.	1.6	7
94	Technology of p-type microstrip detectors with radiation hard p-spray, p-stop and moderated p-spray insulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 599-603.	1.6	13
95	Characterisation of p-type detectors for the future Super-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 604-607.	1.6	0
96	The ATLAS semiconductor tracker end-cap module. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 353-389.	1.6	65
97	Magnetolectric coupling in $\hat{\mu}$ -Fe ₂ O ₃ nanoparticles. Nanotechnology, 2006, 17, 687-691.	2.6	99
98	Technology development of p-type microstrip detectors with radiation hard p-spray isolation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 566, 360-365.	1.6	27
99	Edgeless detectors fabricated by dry etching process. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 563, 70-73.	1.6	8
100	Double Sided 3D Detector Technologies at CNM-IMB. , 2006, , .		11
101	Development of radiation tolerant semiconductor detectors for the Super-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 546, 99-107.	1.6	29
102	Beam tests of ATLAS SCT silicon strip detector modules. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 538, 384-407.	1.6	42
103	Radiation-hard semiconductor detectors for SuperLHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 541, 189-201.	1.6	55
104	Characterization of magnetic Czochralski silicon radiation detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 355-363.	1.6	10
105	Annealing Studies of magnetic Czochralski silicon radiation detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 552, 27-33.	1.6	13
106	Design and performance of the ABCD3TA ASIC for readout of silicon strip detectors in the ATLAS semiconductor tracker. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 552, 292-328.	1.6	104
107	Recent advancements in the development of radiation hard semiconductor detectors for S-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 552, 7-19.	1.6	33
108	<title>CMOS degradation effects due to electron beam lithography in smart NEMS fabrication</title>. , 2005, 5836, 667.		5

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109	Comparison of radiation hardness of P-in-N, N-in-N, and N-in-P silicon pad detectors. IEEE Transactions on Nuclear Science, 2005, 52, 1468-1473.	2.0	28
110	High-energy proton irradiation effects on tunnelling MOS capacitors. Microelectronic Engineering, 2004, 72, 85-89.	2.4	10
111	High-pitch metal-on-glass technology for pad pitch adaptation between detectors and readout electronics. IEEE Transactions on Nuclear Science, 2004, 51, 968-974.	2.0	13
112	Effect of Combined Oxygenation and Gettering on Minority Carrier Lifetime in High-Resistivity FZ Silicon. Journal of the Electrochemical Society, 2004, 151, G652.	2.9	3
113	High pitch metal-on-glass technology for pad pitch adaptation between detectors and readout electronics. , 2003, , .		0
114	Electrical characteristics of high-energy proton irradiated ultra-thin gate oxides. Microelectronics Reliability, 2002, 42, 1501-1504.	1.7	4
115	Characterization of N-in-N microstrip radiation detectors fabricated on different silicon substrates. , 0, , .		0