

# Riccardo Camattari

## List of Publications by Year in descending order

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41  
papers

435  
citations

687363

13  
h-index

839539

18  
g-index

41  
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41  
docs citations

41  
times ranked

134  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-standing bent silicon crystals for very high efficiency Laue lens. <i>Experimental Astronomy</i> , 2011, 31, 45-58.	3.7	38
2	High diffraction efficiency at hard X-ray energy in a silicon crystal bent by indentation. <i>Journal of Applied Crystallography</i> , 2010, 43, 1519-1521.	4.5	29
3	Proposal for a Laue lens with quasi-mosaic crystalline tiles. <i>Journal of Applied Crystallography</i> , 2011, 44, 1255-1258.	4.5	25
4	The 'quasi-mosaic' effect in crystals and its applications in modern physics. <i>Journal of Applied Crystallography</i> , 2015, 48, 977-989.	4.5	24
5	Bending of silicon plate crystals through superficial grooving: Modeling and experimentation. <i>Thin Solid Films</i> , 2011, 520, 1069-1073.	1.8	22
6	Experimental analysis and modeling of self-standing curved crystals for focusing of X-rays. <i>Meccanica</i> , 2013, 48, 1875-1882.	2.0	22
7	Self-standing quasi-mosaic crystals for focusing hard X-rays. <i>Review of Scientific Instruments</i> , 2013, 84, 053110.	1.3	19
8	Optimal process parameters for phosphorus spin-on-doping of germanium. <i>Applied Surface Science</i> , 2017, 392, 1173-1180.	6.1	18
9	Curved crystals for high-resolution focusing of X and gamma rays through a Laue lens. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2013, 309, 249-253.	1.4	15
10	Proposal for a Laue lens relying on hybrid quasi-mosaic curved crystals. <i>Astronomy and Astrophysics</i> , 2013, 560, A58.	5.1	15
11	High diffraction efficiency with hard X-rays through a thick silicon crystal bent by carbon fiber deposition. <i>Journal of Applied Crystallography</i> , 2014, 47, 1762-1764.	4.5	15
12	<i>AniCryDe</i> : calculation of elastic properties in silicon and germanium crystals. <i>Journal of Applied Crystallography</i> , 2015, 48, 943-949.	4.5	14
13	Study and characterization of bent crystals for Laue lenses. <i>Experimental Astronomy</i> , 2014, 38, 401-416.	3.7	13
14	Highly reproducible quasi-mosaic crystals as optical components for a Laue lens. <i>Experimental Astronomy</i> , 2014, 37, 1-10.	3.7	13
15	Design study of a Laue lens for nuclear medicine. <i>Journal of Applied Crystallography</i> , 2015, 48, 125-137.	4.5	13
16	Ordered stacking of crystals with adjustable curvatures for hard X- and $\hat{\Gamma}^3$ -ray broadband focusing. <i>Journal of Applied Crystallography</i> , 2013, 46, 953-959.	4.5	12
17	High-efficiency focusing of hard X-rays exploiting the quasi-mosaic effect in a bent germanium crystal. <i>Journal of Applied Crystallography</i> , 2014, 47, 799-802.	4.5	11
18	Homogeneous self-standing curved monocrystals, obtained using sandblasting, to be used as manipulators of hard X-rays and charged particle beams. <i>Journal of Applied Crystallography</i> , 2017, 50, 145-151.	4.5	11

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19	Characterization and modeling of thermally-induced doping contaminants in high-purity germanium. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 035104.	2.8	11
20	Ion implantation for manufacturing bent and periodically bent crystals. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	10
21	Quasi-mosaicity of (311) planes in silicon and its use in a Laue lens with high-focusing power. <i>Experimental Astronomy</i> , 2014, 38, 417-431.	3.7	8
22	Calculation of diffraction efficiency for curved crystals with arbitrary curvature radius. <i>Journal of Applied Crystallography</i> , 2013, 46, 415-420.	4.5	7
23	Genetic algorithm to design Laue lenses with optimal performance for focusing hard X- and $\gamma$ -rays. <i>Astronomy and Astrophysics</i> , 2014, 570, A17.	5.1	6
24	Manufacturing of advanced bent crystals for Laue Optics for Gamma ObservationS (LOGOS). <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2015, 355, 297-300.	1.4	6
25	High-efficiency diffraction and focusing of X-rays through asymmetric bent crystalline planes. <i>Journal of Applied Crystallography</i> , 2015, 48, 297-300.	4.5	6
26	Laue lens for astrophysics: Extensive comparison between mosaic, curved, and quasi-mosaic crystals. <i>Astronomy and Astrophysics</i> , 2016, 587, A21.	5.1	6
27	Laue lens for radiotherapy applications through a focused hard x-ray beam: a feasibility study on requirements and tolerances. <i>Physics in Medicine and Biology</i> , 2017, 62, 7249-7266.	3.0	6
28	Fabrication of quasi-mosaic Ge crystals for the LAUE project. <i>Proceedings of SPIE</i> , 2013, , .	0.8	5
29	Laue lens to focus an X-ray beam for radiation therapy. <i>Journal of Applied Crystallography</i> , 2016, 49, 468-478.	4.5	5
30	X-ray characterization of self-standing bent Si crystal plates for Large Hadron Collider beam extraction. <i>Journal of Applied Crystallography</i> , 2020, 53, 486-493.	4.5	5
31	Modular stand-alone photoelectrocatalytic reactor for emergent contaminant degradation via solar radiation. <i>Solar Energy</i> , 2021, 228, 120-127.	6.1	5
32	Quasi-mosaicity as a tool for focusing hard x-rays. <i>Proceedings of SPIE</i> , 2012, , .	0.8	4
33	Stack of quasi-mosaic thin lamellae as a diffracting element for Laue lenses. <i>Experimental Astronomy</i> , 2014, 38, 25-40.	3.7	4
34	Thick self-standing bent crystals as optical elements for a Laue lens for applications in astrophysics. <i>Experimental Astronomy</i> , 2018, 46, 309-321.	3.7	4
35	Silicon crystalline undulator prototypes: Manufacturing and x-ray characterization. <i>Physical Review Accelerators and Beams</i> , 2019, 22, .	1.6	4
36	Stack of curved crystals as optical component for hard x- and gamma-ray focusing through a Laue lens. <i>Proceedings of SPIE</i> , 2012, , .	0.8	2

#	ARTICLE	IF	CITATIONS
37	Origin of quasi-mosaic effect for symmetric skew planes in a silicon or germanium plate. Journal of Applied Crystallography, 2016, 49, 1810-1813.	4.5	1
38	Design and Evaluation of a Novel Ultra High-Resolution Lens-Based SPECT: Insight to Light Field Imaging. , 2021, , .		1
39	Bent crystals as high-reflectivity components for a Laue lens: basic concepts and experimental techniques. , 2012, , .		0
40	Quasi-mosaicity as a powerful tool to investigate coherent effects. Proceedings of SPIE, 2013, , .	0.8	0
41	Comment on "Design and modeling of a Laue lens for radiation therapy with hard x-ray photons". Physics in Medicine and Biology, 2022, 67, 138001.	3.0	0