

# Luca Lutterotti

## List of Publications by Year in descending order

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91  
papers

7,365  
citations

147726

31  
h-index

53190

85  
g-index

94  
all docs

94  
docs citations

94  
times ranked

8520  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystallography Open Database – an open-access collection of crystal structures. <i>Journal of Applied Crystallography</i> , 2009, 42, 726-729.	1.9	1,157
2	Total pattern fitting for the combined size–strain–stress–texture determination in thin film diffraction. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2010, 268, 334-340.	0.6	905
3	Crystallography Open Database (COD): an open-access collection of crystal structures and platform for world-wide collaboration. <i>Nucleic Acids Research</i> , 2012, 40, D420-D427.	6.5	826
4	Simultaneous structure and size–strain refinement by the Rietveld method. <i>Journal of Applied Crystallography</i> , 1990, 23, 246-252.	1.9	636
5	Texture, residual stress and structural analysis of thin films using a combined X-ray analysis. <i>Thin Solid Films</i> , 2004, 450, 34-41.	0.8	401
6	Method for the simultaneous determination of anisotropic residual stresses and texture by x-ray diffraction. <i>Journal of Applied Physics</i> , 1994, 76, 7246-7255.	1.1	317
7	X-ray diffraction characterization of heavily deformed metallic specimens. <i>Acta Materialia</i> , 1998, 46, 101-110.	3.8	297
8	LSI- a computer program for simultaneous refinement of material structure and microstructure. <i>Journal of Applied Crystallography</i> , 1992, 25, 459-462.	1.9	238
9	Quantitative Analysis of Silicate Glass in Ceramic Materials by the Rietveld Method. <i>Materials Science Forum</i> , 1998, 278-281, 87-92.	0.3	178
10	In situ observation of texture evolution during $\beta \rightarrow \alpha'$ and $\beta \rightarrow \alpha$ phase transformations in titanium alloys investigated by neutron diffraction. <i>Acta Materialia</i> , 2007, 55, 5718-5727.	3.8	174
11	Rietveld texture analysis from TOF neutron diffraction data. <i>Powder Diffraction</i> , 2010, 25, 283-296.	0.4	164
12	Advances in Texture Analysis from Diffraction Spectra. <i>Journal of Applied Crystallography</i> , 1997, 30, 31-42.	1.9	137
13	Rietveld texture analysis from synchrotron diffraction images. I. Calibration and basic analysis. <i>Powder Diffraction</i> , 2014, 29, 76-84.	0.4	129
14	Texture measurements using the new neutron diffractometer HIPPO and their analysis using the Rietveld method. <i>Powder Diffraction</i> , 2004, 19, 65-68.	0.4	118
15	Quantitative texture analysis with the HIPPO neutron TOF diffractometer. <i>Journal of Applied Crystallography</i> , 2005, 38, 462-475.	1.9	107
16	Texture analysis from synchrotron diffraction images with the Rietveld method: dinosaur tendon and salmon scale. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 354-360.	1.0	103
17	Rietveld texture analysis from synchrotron diffraction images. II. Complex multiphase materials and diamond anvil cell experiments. <i>Powder Diffraction</i> , 2014, 29, 220-232.	0.4	102
18	Quantitative Rietveld texture analysis of zirconium from single synchrotron diffraction images. <i>Journal of Applied Crystallography</i> , 2005, 38, 377-380.	1.9	96

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19	Microstructural and kinetic aspects of the transformations induced in a FeAl alloy by ball-milling and thermal treatments. <i>Acta Materialia</i> , 1998, 46, 3305-3316.	3.8	84
20	Texture Analysis from Diffraction Spectra. <i>Materials Science Forum</i> , 1994, 157-162, 473-480.	0.3	65
21	<i>ReX</i> : a computer program for structural analysis using powder diffraction data. <i>Journal of Applied Crystallography</i> , 2009, 42, 538-539.	1.9	60
22	Rietveld texture analysis of Dabie Shan eclogite from TOF neutron diffraction spectra. <i>Journal of Applied Crystallography</i> , 2001, 34, 442-453.	1.9	57
23	Texture analysis of a turbostratically disordered Ca-montmorillonite. <i>American Mineralogist</i> , 2010, 95, 98-103.	0.9	57
24	Modified thick thermal barrier coatings: microstructural characterization. <i>Journal of the European Ceramic Society</i> , 2004, 24, 2247-2258.	2.8	52
25	Wear debris from brake system materials: A multi-analytical characterization approach. <i>Tribology International</i> , 2016, 94, 249-259.	3.0	48
26	Title is missing!. <i>Journal of Sol-Gel Science and Technology</i> , 2000, 18, 29-59.	1.1	46
27	Quantitative Texture Analysis of Spark Plasma Textured $\text{Bi}_2\text{Te}_3$ . <i>Journal of the American Ceramic Society</i> , 2014, 97, 2038-2045.	1.9	42
28	Full-profile searchâ€‘match by the Rietveld method. <i>Journal of Applied Crystallography</i> , 2019, 52, 587-598.	1.9	42
29	Combining XRD and XRF analysis in one Rietveld-like fitting. <i>Powder Diffraction</i> , 2017, 32, S225-S230.	0.4	38
30	Raman Open Database: first interconnected Ramanâ€‘X-ray diffraction open-access resource for material identification. <i>Journal of Applied Crystallography</i> , 2019, 52, 618-625.	1.9	34
31	Microstructural characterization of plasma-sprayed zirconia thermal barrier coatings by X-ray diffraction full pattern analysis. <i>Surface and Coatings Technology</i> , 1993, 61, 52-59.	2.2	33
32	Thermal Expansion Anisotropy of Ceria-Stabilized Tetragonal Zirconia. <i>Journal of the American Ceramic Society</i> , 1992, 75, 2828-2832.	1.9	31
33	Modeling Solidification Microstructures of Steel Round Billets Obtained by Continuous Casting. <i>ISI International</i> , 2011, 51, 1448-1453.	0.6	26
34	Textured Al-doped ZnO ceramics with isotropic grains. <i>Journal of the European Ceramic Society</i> , 2014, 34, 4247-4256.	2.8	26
35	Structural, mechanical and magnetic properties of nanostructured FeAl alloys during disordering and thermal recovery. <i>Scripta Materialia</i> , 1999, 11, 689-695.	0.5	24
36	X-Ray Combined QTA Using a CPS Applied to a Ferroelectric Ultrastructure. <i>Materials Science Forum</i> , 2002, 408-412, 113-118.	0.3	24

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37	XRD characterization of multilayered systems. <i>Thin Solid Films</i> , 1993, 236, 130-134.	0.8	21
38	Growth and texture of spark plasma sintered Al <sub>2</sub> O <sub>3</sub> ceramics: A combined analysis of X-rays and electron back scatter diffraction. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	21
39	The correlation between gate dielectric, film growth, and charge transport in organic thin film transistors: the case of vacuum-sublimed tetracene thin films. <i>Journal of Materials Chemistry C</i> , 2013, 1, 967-976.	2.7	20
40	Mineralogical investigations using XRD, XRF, and Raman spectroscopy in a combined approach. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 1023-1030.	1.2	20
41	Rietveld Texture and Stress Analysis of Thin Films by X-Ray Diffraction. <i>Materials Science Forum</i> , 2002, 408-412, 1603-1608.	0.3	19
42	Combined X-ray Texture-Structure-Microstructure Analysis Applied to Ferroelectric Ultrastructures: A Case Study on Pb 0.76 Ca 0.24 TiO <sub>3</sub> . <i>Ferroelectrics</i> , 2002, 267, 323-328.	0.3	18
43	Voyaging around nacre with the X-ray shuttle: From bio-mineralisation to prosthetics via mollusc phylogeny. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 528, 37-51.	2.6	18
44	Powder diffraction. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	17
45	Kinetics of Reordering in A Nanograined FeAl Alloy. <i>Materials Science Forum</i> , 1997, 235-238, 415-420.	0.3	16
46	Synthesis, Characterization and Photocatalytic Activity of TiO <sub>2</sub> Powders Prepared Under Different Gelling and Pressure Conditions. <i>Journal of Sol-Gel Science and Technology</i> , 2005, 33, 201-213.	1.1	16
47	Advances in exploiting preferred orientation in the structure analysis of polycrystalline materials. <i>Journal of Applied Crystallography</i> , 2013, 46, 173-180.	1.9	16
48	Quantitative texture analysis of glaucophanite deformed under eclogite facies conditions (Sesia-Lanzo Zone, Western Alps): comparison between X-ray and neutron diffraction analysis. <i>Geological Society Special Publication</i> , 2002, 200, 239-253.	0.8	15
49	Combined X-ray diffraction and fluorescence analysis in the cultural heritage field. <i>Microchemical Journal</i> , 2016, 126, 423-430.	2.3	15
50	X-ray textural and microstructural characterisations by using the Combined Analysis Approach for the optical optimisation of micro- and nano-structured thin films. <i>Thin Solid Films</i> , 2009, 517, 6264-6270.	0.8	14
51	Diffraction Methods for the Characterisation of Defects in Intermetallic Compounds. <i>Materials Science Forum</i> , 1996, 228-231, 551-556.	0.3	13
52	Preferred orientation of ettringite in concrete fractures. <i>Journal of Applied Crystallography</i> , 2009, 42, 429-432.	1.9	13
53	Microstructure and hardness of a nanostructured Fe-40Al at% alloy. <i>Scripta Materialia</i> , 1999, 12, 801-806.	0.5	12
54	Structural analysis of strained LaVO <sub>3</sub> thin films. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 175001.	0.7	12

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55	Study of annealing-induced interdiffusion in In <sub>2</sub> O <sub>3</sub> /Ag/In <sub>2</sub> O <sub>3</sub> structures by a combined X-ray reflectivity and grazing incidence X-ray fluorescence analysis. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 113, 132-137.	1.5	12
56	Characterization of epitaxial SrTiO <sub>3</sub> /YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> layers deposited on (001) MgO by laser ablation. <i>Journal of Materials Research</i> , 1993, 8, 2780-2784.	1.2	11
57	Microstructural Characterisation of Amorphous and Nanocrystalline Structures Through Diffraction Methods. <i>Materials Science Forum</i> , 2000, 343-346, 657-664.	0.3	11
58	Pyrolysis pathway of sol-gel derived organic/inorganic hybrid nanocomposites. <i>Journal of Non-Crystalline Solids</i> , 2003, 322, 22-28.	1.5	11
59	Ambipolar organic thin film transistors based on a soluble pentacene derivative. <i>Applied Physics Letters</i> , 2011, 99, 023304.	1.5	11
60	Quantitative 3D microstructural analysis of naturally deformed amphibolite from the Southern Alps (Italy): microstructures, CPO and seismic anisotropy from a fossil extensional margin. <i>Geological Society Special Publication</i> , 2015, 409, 201-222.	0.8	11
61	Thermal Stresses in Coated Structures. <i>Journal of Engineering Mechanics - ASCE</i> , 1992, 118, 1928-1938.	1.6	9
62	Characterization of nanograined powder samples using the Rietveld method applied to electron diffraction ring patterns. <i>Powder Diffraction</i> , 2017, 32, S63-S68.	0.4	9
63	Influence of Crystallite Size and Microstrain on Structure Refinement. <i>Materials Science Forum</i> , 1991, 79-82, 233-238.	0.3	8
64	Rietveld Refinement Using Debye-Scherrer Film Techniques. <i>Materials Science Forum</i> , 1996, 228-231, 29-34.	0.3	8
65	Particle anisotropy and crystalline phase transition in one-pot synthesis of nano-zirconia: a causal relationship. <i>CrystEngComm</i> , 2018, 20, 879-888.	1.3	8
66	Thermoanalytical Characterization of a Nanograined Fe-40Al Alloy. <i>Materials Science Forum</i> , 1996, 225-227, 395-400.	0.3	7
67	Magnetic and X-Ray Diffraction Investigations of the Reordering of a Ball Milled Fe-40Al at% Alloy. <i>Materials Science Forum</i> , 1998, 269-272, 637-642.	0.3	7
68	Brittle + plastic deformation of gypsum aggregates experimentally deformed in torsion to high strains: quantitative microstructural and texture analysis from optical and diffraction data. <i>Geological Society Special Publication</i> , 2010, 332, 79-98.	0.8	7
69	New Opportunities in the Texture and Stress Field by the Whole Pattern Analysis. <i>Materials Science Forum</i> , 1996, 228-231, 83-88.	0.3	6
70	Application of the Rietveld Method to Phase Analysis of Multilayered Systems. <i>Materials Science Forum</i> , 1993, 133-136, 57-62.	0.3	5
71	Reaction-sintering of intermetallic alloys of the Ni-Al-Mo system. <i>Intermetallics</i> , 2000, 8, 279-286.	1.8	5
72	Materials and technological aspects of gilded buckles from a North Eastern Medieval Italian context. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 113, 1101-1108.	1.1	5

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73	Thermal analysis of plasma-sprayed thermal barrier coatings. <i>Thermochimica Acta</i> , 1993, 227, 9-18.	1.2	4
74	On the measure of order in alloys. <i>Progress in Materials Science</i> , 1997, 42, 125-133.	16.0	4
75	Microstructural Characterisation of Metastable Structures in Intermetallic Compounds. <i>Materials Science Forum</i> , 1998, 269-272, 373-378.	0.3	4
76	Preferred Orientation Contribution to the Anisotropic Normal State Resistivity in Superconducting Melt-Cast Processed Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8</sub> + $\delta$ . <i>Materials</i> , 2017, 10, 534.	1.3	4
77	Quantitative Texture Analysis with the HIPPO TOF Diffractometer. <i>Materials Science Forum</i> , 2005, 495-497, 113-118.	0.3	3
78	Rietveld texture analysis by neutron diffraction of highly absorbing materials. <i>Powder Diffraction</i> , 2006, 21, 114-117.	0.4	3
79	Quantitative Phase Analysis: Method Developments. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2012, , 233-242.	0.2	3
80	Structural and morphological phase control by supersonic beams on titanyl phthalocyanine: An investigation on the growth. <i>Organic Electronics</i> , 2016, 32, 15-20.	1.4	3
81	Thermal Behaviour of Monoclinic Zirconia at Low Temperature by XRPD Full Pattern Analysis. <i>Materials Science Forum</i> , 1994, 166-169, 495-500.	0.3	2
82	Defect Structures in Ball-Milled Intermetallic Powders. <i>Materials Science Forum</i> , 1995, 179-181, 59-64.	0.3	2
83	Reaction sintering of Fe-Al-Si alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2002, 23, 72-78.	0.3	2
84	Avoiding Surface and Absorption Effects in XRD Quantitative Phase Analysis. <i>Materials Science Forum</i> , 1998, 278-281, 69-74.	0.3	1
85	Characterization of Microstructure and Crystallographic Texture of Silicate and Phyllosilicate Ceramics. <i>Advances in Science and Technology</i> , 2010, 68, 13-22.	0.2	1
86	Combined XRD-XRF cluster analysis for automatic chemical and crystallographic surface mappings. <i>Powder Diffraction</i> , 2019, 34, S36-S41.	0.4	1
87	Texture Characterisation of a Porphyroblastic Pyrope. <i>Materials Science Forum</i> , 1994, 166-169, 731-736.	0.3	0
88	Combined analysis in 2015: XRD (texture, residual stresses, microstructure) complemented by fluorescence (XRF and GiXRF) and electron diffraction. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, s517-s517.	0.0	0
89	Effect of Processing and Orientation on Structural and Mechanical Properties of Polypropylene Products. , 2020, , .		0
90	New developments in structure analysis of powders using preferred orientation. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s318-s318.	0.3	0

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91	Chemical information presentation in the Crystallography Open Database. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1710-C1710.	0.0	0