# Alessia Cedola

List of Publications by Year
in descending order

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|---|---|---|---|
| 114 papers | 2,494 citations | 201674 27 h-index | 223800 46 g-index |
| 117 all docs | 117 docs citations | 117 times ranked | 2360 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Hybrid Nanoparticles as Theranostics Platforms for Glioblastoma Treatment: Phototherapeutic and X-ray Phase Contrast Tomography Investigations. Journal of Nanotheranostics, 2022, 3, 1-17. | 3.1 | 1 |
| 2 | High-Sensitivity X-ray Phase Imaging System Based on a Hartmann Wavefront Sensor. Condensed Matter, 2022, 7, 3. | 1.8 | 2 |
| 3 | A computational platform for the virtual unfolding of Herculaneum Papyri. Scientific Reports, 2021, 11, 1695. | 3.3 | 7 |
| 4 | 3D Spatial Distribution of Nanoparticles in Mice Brain Metastases by X-ray Phase-Contrast Tomography. Frontiers in Oncology, 2021, 11, 554668. | 2.8 | 5 |
| 5 | Chemo-physical properties of asbestos bodies in human lung tissues studied at the nano-scale by non-invasive, label free x-ray imaging and spectroscopic techniques. Toxicology Letters, 2021, 348, 18-27. | 0.8 | 6 |
| 6 | Asbestos bodies count and morphometry in bulk lung tissue samples by non-invasive X-ray micro-tomography. Scientific Reports, 2021, 11, 10608. | 3.3 | 2 |
| 7 | Hydroxycarboxylic Acid Receptor 2, a Pleiotropically Linked Receptor for the Multiple Sclerosis Drug, Monomethyl Fumarate. Possible Implications for the Inflammatory Response. Frontiers in Immunology, 2021, 12, 655212. | 4.8 | 10 |
| 8 | Xâ€ray microtomography and phylogenomics provide insights into the morphology and evolution of an enigmatic Mesozoic insect larva. Systematic Entomology, 2021, 46, 672-684. | 3.9 | 27 |
| 9 | Phase-Contrast Tomography with X-ray Hartmann wavefront sensor. , 2021, , . | | 1 |
| 10 | Metabolic Remodeling in Skeletal Muscle Atrophy as a Therapeutic Target. Metabolites, 2021, 11, 517. | 2.9 | 6 |
| 11 | Steerable3D: An ImageJ plugin for neurovascular enhancement in 3-D segmentation. Physica Medica, 2021, 81, 197-209. | 0.7 | 5 |
| 12 | Numerical simulation of the blood oxygenation levelâ€“dependent functional magnetic resonance signal using finite element method. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3290. | 2.1 | 1 |
| 13 | Assessment of plaque morphology in Alzheimerâ€™s mouse cerebellum using three-dimensional X-ray phase-based virtual histology. Scientific Reports, 2020, 10, 11233. | 3.3 | 19 |
| 14 | Modelling of Phase Contrast Imaging with X-ray Wavefront Sensor and Partial Coherence Beams. Sensors, 2020, 20, 6469. | 3.8 | 4 |
| 15 | X-ray Phase Contrast Tomography Serves Preclinical Investigation of Neurodegenerative Diseases. Frontiers in Neuroscience, 2020, 14, 584161. | 2.8 | 12 |
| 16 | Investigation of the human pineal gland 3D organization by X-ray phase contrast tomography. Journal of Structural Biology, 2020, 212, 107659. | 2.8 | 5 |
| 17 | Multiscale Imaging Approach for Studying the Central Nervous System: Methodology and Perspective. Frontiers in Neuroscience, 2020, 14, 72. | 2.8 | 7 |
| 18 | X-ray phase contrast tomography for the investigation of amyotrophic lateral sclerosis. Journal of Synchrotron Radiation, 2020, 27, 1042-1048. | 2.4 | 11 |

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|---|---|---|---|
| 19 | Multiscale pink-beam microCT imaging at the ESRF-ID17 biomedical beamline. Journal of Synchrotron Radiation, 2020, 27, 1347-1357. | 2.4 | 21 |
| 20 | Simultaneous iterative reconstruction method for high resolution x-ray phase-contrast tomography. , 2020, , . | | 1 |
| 21 | Orthotropic artifacts suppression for THz and x-ray images using guided filtering. , 2020, , . | | 2 |
| 22 | High resolution 3D visualization of the spinal cord in a post-mortem murine model. Biomedical Optics Express, 2020, 11, 2235. | 2.9 | 5 |
| 23 | Ancient Greek text concealed on the back of unrolled papyrus revealed through shortwave-infrared hyperspectral imaging. Science Advances, 2019, 5, eaav8936. | 10.3 | 18 |
| 24 | Synchrotron radiation techniques boost the research in bone tissue engineering. Acta Biomaterialia, 2019, 89, 33-46. | 8.3 | 23 |
| 25 | Investigation of Herculaneum Papyri by X-Ray Phase-Contrast Tomography. , 2019, , 299-324. | | 0 |
| 26 | Exploring Alzheimer's disease mouse brain through X-ray phase contrast tomography: From the cell to the organ. NeuroImage, 2019, 184, 490-495. | 4.2 | 56 |
| 27 | Assessing denoising strategies to increase signal to noise ratio in spinal cord and in brain cortical and subcortical regions. Journal of Instrumentation, 2018, 13, C02028-C02028. | 1.2 | 6 |
| 28 | 3D map of theranostic nanoparticles distribution in mice brain and liver by means of X-ray Phase Contrast Tomography. Journal of Instrumentation, 2018, 13, C01049-C01049. | 1.2 | 2 |
| 29 | An improved ring removal procedure for in-line x-ray phase contrast tomography. Physics in Medicine and Biology, 2018, 63, 045007. | 3.0 | 14 |
| 30 | Assessment of the effects of different sample perfusion procedures on phase-contrast tomographic images of mouse spinal cord. Journal of Instrumentation, 2018, 13, C03027-C03027. | 1.2 | 7 |
| 31 | Fractal Dimension Analysis of High-Resolution X-Ray Phase Contrast Micro-Tomography Images at Different Threshold Levels in a Mouse Spinal Cord. Condensed Matter, 2018, 3, 48. | 1.8 | 9 |
| 32 | 3D imaging of theranostic nanoparticles in mice organs by means of x-ray phase contrast tomography. , 2018, , . | | 0 |
| 33 | Quantitative 3D investigation of Neuronal network in mouse spinal cord model. Scientific Reports, 2017, 7, 41054. | 3.3 | 40 |
| 34 | New insights on the biomineralisation process developing in human lungs around inhaled asbestos fibres. Scientific Reports, 2017, 7, 44862. | 3.3 | 17 |
| 35 | SYRMEP Tomo Project: a graphical user interface for customizing CT reconstruction workflows. Advanced Structural and Chemical Imaging, 2017, 3, 4. | 4.0 | 111 |
| 36 | Heterogeneous and self-organizing mineralization of bone matrix promoted by hydroxyapatite nanoparticles. Nanoscale, 2017, 9, 17274-17283. | 5.6 | 31 |

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| 37 | X-Ray Phase Contrast Tomography Reveals Early Vascular Alterations and Neuronal Loss in a Multiple Sclerosis Model. Scientific Reports, 2017, 7, 5890. | 3.3 | 64 |
| 38 | Virtual unrolling and deciphering of Herculaneum papyri by X-ray phase-contrast tomography. Scientific Reports, 2016, 6, 27227. | 3.3 | 27 |
| 39 | Characterization of mouse spinal cord vascular network by means of synchrotron radiation X-ray phase contrast tomography. Physica Medica, 2016, 32, 1779-1784. | 0.7 | 15 |
| 40 | Recent advances in superhydrophobic surfaces and their relevance to biology and medicine. Bioinspiration and Biomimetics, 2016, 11, 011001. | 2.9 | 44 |
| 41 | High-Resolution X-Ray Techniques as New Tool to Investigate the 3D Vascularization of Engineered-Bone Tissue. Frontiers in Bioengineering and Biotechnology, 2015, 3, 133. | 4.1 | 10 |
| 42 | Simultaneous submicrometric 3D imaging of the micro-vascular network and the neuronal system in a mouse spinal cord. Scientific Reports, 2015, 5, 8514. | 3.3 | 73 |
| 43 | Imaging collagen packing dynamics during mineralization of engineered bone tissue. Acta Biomaterialia, 2015, 23, 309-316. | 8.3 | 30 |
| 44 | X-ray micro-beam techniques and phase contrast tomography applied to biomaterials. Nuclear Instruments & Methods in Physics Research B, 2015, 364, 93-97. | 1.4 | 3 |
| 45 | Magnesium intracellular content and distribution map in drug-resistant and -sensitive whole cells. Journal of Biological Research (Italy), 2014, 87, . | 0.1 | 0 |
| 46 | Three dimensional visualization of engineered bone and soft tissue by combined x-ray micro-diffraction and phase contrast tomography. Physics in Medicine and Biology, 2014, 59, 189-201. | 3.0 | 27 |
| 47 | Wet sample confinement by superhydrophobic patterned surfaces for combined X-ray fluorescence and X-ray phase contrast imaging. Microelectronic Engineering, 2013, 111, 304-309. | 2.4 | 17 |
| 48 | X-RAY WAVEGUIDES. Series on Synchrotron Radiation Techniques and Applications, 2013, , 143-162. | 0.2 | 0 |
| 49 | A three-image algorithm for hard x-ray grating interferometry. Optics Express, 2013, 21, 19401. | 3.4 | 21 |
| 50 | Periodically structured X-ray waveguides. Journal of Synchrotron Radiation, 2013, 20, 691-697. | 2.4 | 2 |
| 51 | Imaging regenerating bone tissue based on neural networks applied to micro-diffraction measurements. Applied Physics Letters, 2013, 103, 253703. | 3.3 | 12 |
| 52 | Recent developments on techniques for differential phase imaging at the medical beamline of ELETTRA. Journal of Instrumentation, 2013, 8, C06001-C06001. | 1.2 | 3 |
| 53 | X-ray fluorescence microscopy of light elements in cells: self-absorption correction by integration of compositional and morphological measurements. Journal of Physics: Conference Series, 2013, 463, 012022. | 0.4 | 12 |
| 54 | Iterative retrieval of one-dimensional x ray wave field using a single intensity measurement. Optics Letters, 2012, 37, 262. | 3.3 | 2 |

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| 55 | Early stage mineralization in tissue engineering mapped by high resolution X-ray microdiffraction. Acta Biomaterialia, 2012, 8, 3411-3418. | 8.3 | 36 |
| 56 | Resonance modes filtering in structured x-ray waveguides. Optics Letters, 2011, 36, 2602. | 3.3 | 5 |
| 57 | Combined X-ray Microfluorescence and Atomic Force Microscopy Studies of Mg Distribution in Whole Cells. , 2011, , . | | 0 |
| 58 | Intracellular concentration map of magnesium in whole cells by combined use of X-ray fluorescence microscopy and atomic force microscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2011, 66, 834-840. | 2.9 | 20 |
| 59 | Visible emitting color centers in lithium fluoride for X-ray imaging applications. Radiation Measurements, 2010, 45, 599-601. | 1.4 | 3 |
| 60 | Debye function analysis and 2D imaging of nanoscaled engineered bone. Biomaterials, 2010, 31, 8289-8298. | 11.4 | 23 |
| 61 | Analysis of tapered front-coupling X-ray waveguides. Journal of Synchrotron Radiation, 2010, 17, 61-68. | 2.4 | 17 |
| 62 | F and F-aggregates colour centres in lithium fluoride for high spatial resolution x-ray imaging. Journal of Physics: Conference Series, 2010, 249, 012003. | 0.4 | 2 |
| 63 | X-ray phase contrast microscopy at 300 nm resolution with laboratory sources. Optics Express, 2010, 18, 15998. | 3.4 | 16 |
| 64 | Toward the X-Ray Microdiffraction Imaging of Bone and Tissue-Engineered Bone. Tissue Engineering - Part B: Reviews, 2009, 15, 423-442. | 4.8 | 14 |
| 65 | Some applications of nanotechnologies in stem cells research. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 165, 139-147. | 3.5 | 10 |
| 66 | Theoretical considerations for X-ray phase contrast mammography by Thomson source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S23-S27. | 1.6 | 5 |
| 67 | Advancements in X-ray waveguides and their applications in coherent diffraction imaging. Radiation Physics and Chemistry, 2009, 78, S42-S45. | 2.8 | 2 |
| 68 | In-line phase-contrast imaging for strong absorbing objects. Physics in Medicine and Biology, 2008, 53, 6619-6637. | 3.0 | 15 |
| 69 | In-line holography and coherent diffractive imaging with x-ray waveguides. Physical Review B, 2008, 77, . | 3.2 | 32 |
| 70 | Theoretical Analysis of X-Ray Waveguides. , 2008, , 91-111. | | 1 |
| 71 | Phase retrieval in x-ray coherent Fresnel projection-geometry diffraction. Applied Physics Letters, 2007, 90, 041105. | 3.3 | 6 |
| 72 | Computer simulations and experimental results on air-gap X-ray waveguides. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 615-621. | 2.9 | 19 |

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| 73 | Canonical correlation and quantitative phase analysis of microdiffraction patterns in bone-tissue engineering. Journal of Applied Crystallography, 2007, 40, 865-873. | 4.5 | 8 |
| 74 | Engineering of bone using bone marrow stromal cells and a silicon-stabilized tricalcium phosphate bioceramic: Evidence for a coupling between bone formation and scaffold resorption. Biomaterials, 2007, 28, 1376-1384. | 11.4 | 126 |
| 75 | Bulk and interface investigations of scaffolds and tissue-engineered bones by X-ray microtomography and X-ray microdiffraction. Biomaterials, 2007, 28, 2505-2524. | 11.4 | 110 |
| 76 | Orientation of mineral crystals by collagen fibers during in vivo bone engineering: An X-ray diffraction imaging study. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 642-647. | 2.9 | 25 |
| 77 | Wave-Field Formation in a Hollow X-Ray Waveguide. Physical Review Letters, 2006, 97, 184801. | 7.8 | 35 |
| 78 | Kinetics ofIn VivoBone Deposition by Bone Marrow Stromal Cells into Porous Calcium Phosphate Scaffolds: An X-Ray Computed Microtomography Study. Tissue Engineering, 2006, 12, 3449-3458. | 4.6 | 63 |
| 79 | Dispersion properties of x-ray waveguides. Applied Optics, 2006, 45, 2821. | 2.1 | 4 |
| 80 | Large-distance refocusing of a submicrometre beam from an X-ray waveguide. Journal of Synchrotron Radiation, 2006, 13, 85-87. | 2.4 | 1 |
| 81 | X-ray point- and line-projection microscopy and diffraction. Optics Communications, 2006, 265, 18-28. | 2.1 | 4 |
| 82 | Engineered bone from bone marrow stromal cells: a structural study by an advanced x-ray microdiffraction technique. Physics in Medicine and Biology, 2006, 51, N109-N116. | 3.0 | 28 |
| 83 | Hard x-ray contact microscopy with 250nm spatial resolution using a LiF film detector and a tabletop microsource. Applied Physics Letters, 2006, 89, 054102. | 3.3 | 41 |
| 84 | <title>Design and simulation of nested x-ray mirrors</title>. , 2005, , . | | 1 |
| 85 | <title>Ten years of x-ray waveguides: past, present and future</title>. , 2005, , . | | 0 |
| 86 | X-ray waveguides for laboratory sources. Journal Physics D: Applied Physics, 2005, 38, A213-A217. | 2.8 | 8 |
| 87 | X-ray characterization of Si microstructures with high spatial resolution. Journal of Applied Physics, 2004, 95, 1662-1666. | 2.5 | 2 |
| 88 | An automatic analysis of strain-depth profile in X-ray microdiffraction. Physica B: Condensed Matter, 2004, 353, 104-110. | 2.7 | 2 |
| 89 | High spatial resolution X-ray microdiffraction applied to biomaterial studies and archeometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 1557-1564. | 2.9 | 12 |
| 90 | Synchrotron Radiation Microtomography of Bone Engineered from Bone Marrow Stromal Cells. Tissue Engineering, 2004, 10, 1767-1774. | 4.6 | 36 |

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| 91 | From Surface Xâ€ray Standing Waves to Waveguides: Principles and Applications. Synchrotron Radiation News, 2004, 17, 30-36. | 0.8 | 6 |
| 92 | Spatial coherence of X-ray planar waveguide exiting radiation. Optics Communications, 2003, 217, 31-45. | 2.1 | 16 |
| 93 | Techniques for mechanical strain analysis in sub-micrometer structures: TEM/CBED, micro-Raman spectroscopy, X-ray micro-diffraction and modeling. Microelectronic Engineering, 2003, 70, 425-435. | 2.4 | 44 |
| 94 | X-ray micro-diffraction analysis of reconstructed bone at Zr prosthetic surface with sub-micrometre spatial resolution. Physics in Medicine and Biology, 2003, 48, N37-N48. | 3.0 | 8 |
| 95 | X-ray micro-diffraction analysis of reconstructed bone at Zr prosthetic surface with sub-micrometer spatial resolution. European Physical Journal Special Topics, 2003, 104, 329-332. | 0.2 | 2 |
| 96 | Advances in Microdiffraction with X-Ray Waveguide. Crystal Research and Technology, 2002, 37, 758. | 1.3 | 14 |
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| 98 | High gain beam compression in new-generation thin-film x-ray waveguides. Applied Physics Letters, 2001, 78, 1192-1194. | 3.3 | 84 |
| 99 | Microcrystallography with an X-ray waveguide. Journal of Applied Crystallography, 2000, 33, 1231-1240. | 4.5 | 68 |
| 100 | Non-destructive determination of local strain with 100-nanometre spatial resolution. Nature, 2000, 403, 638-640. | 27.8 | 145 |
| 101 | X-ray nano-diffraction: 100 nm resolution obtained in a novel imaging technique for strain measurement at buried interfaces. Microelectronic Engineering, 2000, 53, 645-648. | 2.4 | 26 |
| 102 | Sub-micrometre coherent beams from x-ray waveguides: principles and applications. Journal Physics D: Applied Physics, 1999, 32, A179-A183. | 2.8 | 10 |
| 103 | The application of resonantly enhanced X-ray standing waves in fluorescence and waveguide experiments. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1999, 54, 1487-1495. | 2.9 | 3 |
| 104 | Thin film X-ray waveguides: â€˜Condenser systemsâ€™ for experiments with X-ray beams of 0.1 Î¼m dimension. Journal of Alloys and Compounds, 1999, 286, 9-13. | 5.5 | 5 |
| 105 | Application of resonance-enhanced X-ray standing waves to the study of layered structures by grazing-incidence X-ray reflectometry and secondary radiation. Journal of Alloys and Compounds, 1999, 286, 313-321. | 5.5 | 1 |
| 106 | Submicrometre Beams from a Hard X-ray Waveguide at a Third-Generation Synchrotron Radiation Source. Journal of Synchrotron Radiation, 1998, 5, 17-22. | 2.4 | 8 |
| 107 | Submicrometre resolution phase-contrast radiography with the beam from an X-ray waveguide. Journal of Synchrotron Radiation, 1998, 5, 376-378. | 2.4 | 50 |
| 108 | Phase contrast hard x-ray microscopy with submicron resolution. Applied Physics Letters, 1997, 71, 2557-2559. | 3.3 | 113 |

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| 109 | ‹title›High-resolution phase contrast microscopy with a hard x-ray waveguide‹/title›. , 1997, , . | | 0 |
| 110 | Microdiffraction Experiments on Single Polymeric Fibers by Synchrotron Radiation. Macromolecules, 1997, 30, 1033-1037. | 4.8 | 86 |
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| 112 | Electromagnetic field resonance in thin amorphous films: a tool for non-destructive localization of thin marker layers by use of a standard X-ray tube. Thin Solid Films, 1996, 287, 288-292. | 1.8 | 14 |
| 113 | Submicrometer x-ray beam production by a thin film waveguide. Journal of Applied Physics, 1996, 79, 4471. | 2.5 | 79 |
| 114 | Properties of a submicrometer xâ€ray beam at the exit of a waveguide. Journal of Applied Physics, 1996, 80, 4831-4836. | 2.5 | 90 |