# Tianxi Sun

List of Publications by Year
in descending order

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| 77 | 748 | 567281 15 | 677142 22 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 77 | 77 | 77 | 309 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Measurements of energy dependence of properties of polycapillary x-ray lens by using organic glass as a scatterer. Journal of Applied Physics, 2005, 97, 124904. | 2.5 | 62 |
| 2 | Spatially Resolved In Situ Measurements of the Ion Distribution Near the Surface of Electrode in a Steady-State Diffusion in an Electrolytic Tank with Confocal Micro X-ray Fluorescence. Analytical Chemistry, 2014, 86, 362-366. | 6.5 | 31 |
| 3 | Full-field transmission x-ray imaging with confocal polycapillary x-ray optics. Journal of Applied Physics, 2013, 113, 053104. | 2.5 | 27 |
| 4 | Elemental depth profile of faux bamboo paint in Forbidden City studied by synchrotron radiation confocal Âμâ€XRF. X-Ray Spectrometry, 2008, 37, 595-598. | 1.4 | 26 |
| 5 | Characterization of a confocal three-dimensional micro X-ray fluorescence facility based on polycapillary X-ray optics and Kirkpatrickâ€“Baez mirrors. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 76-80. | 2.9 | 25 |
| 6 | Characterization and applications of a new tabletop confocal micro X-ray fluorescence setup. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 2638-2642. | 1.4 | 24 |
| 7 | Study on the measurement of properties of polycapillary X-ray lens. Nuclear Instruments & Methods in Physics Research B, 2004, 226, 651-658. | 1.4 | 23 |
| 8 | Quantitative analysis of single aerosol particles with confocal micro-X-ray fluorescence spectrometer. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 622, 295-297. | 1.6 | 23 |
| 9 | Application of confocal technology based on polycapillary X-ray optics in three-dimensional diffraction scanning analysis. Nuclear Instruments & Methods in Physics Research B, 2014, 323, 25-29. | 1.4 | 22 |
| 10 | Confocal three-dimensional micro X-ray scatter imaging for non-destructive detecting foreign bodies with low density and low-Z materials in food products. Food Control, 2015, 54, 120-125. | 5.5 | 22 |
| 11 | Single bounce ellipsoidal glass monocapillary condenser for X-ray nano-imaging. Optics Communications, 2017, 398, 91-94. | 2.1 | 22 |
| 12 | Characterization of polycapillary X-ray lens for application in confocal three-dimensional energy-dispersive micro X-ray diffraction experiments. Journal of Applied Crystallography, 2007, 40, 1169-1173. | 4.5 | 19 |
| 13 | Focusing synchrotron radiation using a polycapillary half-focusing X-ray lens for imaging. Journal of Synchrotron Radiation, 2009, 16, 116-118. | 2.4 | 18 |
| 14 | Simulation of transmitted X-rays in a polycapillary X-ray lens. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 795, 186-191. | 1.6 | 18 |
| 15 | Application of a combined system of polycapillary x-ray lens and toroidal mirror in micro-x-ray-absorption fine-structure facility. Journal of Applied Physics, 2006, 99, 094907. | 2.5 | 16 |
| 16 | Performance of polycapillary X-ray optics for confocal energy-dispersive small-angle X-ray scattering. Journal of Applied Crystallography, 2013, 46, 1880-1883. | 4.5 | 15 |
| 17 | Characterization of a polycapillary focusing X-ray lens for application in spatially resolved EXAFS experiments. Chemical Physics Letters, 2007, 439, 412-414. | 2.6 | 14 |
| 18 | Confocal X-ray technology based on capillary X-ray optics. Reviews in Analytical Chemistry, 2015, 34, . | 3.2 | 14 |

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|---|---|---|---|
| 19 | Determination of the properties of a polycapillary x-ray lens. X-Ray Spectrometry, 2006, 35, 120-124. | 1.4 | 13 |
| 20 | An energy dispersive micro X-ray diffractometer based on a combined system of polycapillary optics. Nuclear Instruments & Methods in Physics Research B, 2007, 262, 153-156. | 1.4 | 12 |
| 21 | Application of confocal X-ray fluorescence micro-spectroscopy to the investigation of paint layers. Applied Radiation and Isotopes, 2014, 94, 109-112. | 1.5 | 12 |
| 22 | Quantitative analysis of single aerosol particles using polycapillary X-ray optics. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 1194-1197. | 2.9 | 11 |
| 23 | Fine structures of divergence of polycapillary X-ray optics. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 2758-2761. | 1.4 | 11 |
| 24 | Performances for confocal X-ray diffraction technology based on polycapillary slightly focusing X-ray optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 723, 1-4. | 1.6 | 11 |
| 25 | Confocal depth-resolved fluorescence micro-X-ray absorption spectroscopy for the study of cultural heritage materials: a new mobile endstation at the Beijing Synchrotron Radiation Facility. Journal of Synchrotron Radiation, 2017, 24, 1000-1005. | 2.4 | 11 |
| 26 | Performances of a prototype point-contact germanium detector immersed in liquid nitrogen for light dark matter search. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1. | 5.1 | 11 |
| 27 | Adjustment of confocal configuration for capillary X-ray optics with a liquid secondary target. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 729, 565-568. | 1.6 | 10 |
| 28 | Performances of capillary X-ray optics for confocal three-dimensional micro-X-ray fluorescence technology. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 829-832. | 1.6 | 9 |
| 29 | Size-Resolved Source Apportionment of Aerosol Particles with a Confocal Micro X-Ray Fluorescence Spectrometer. Applied Spectroscopy, 2011, 65, 1398-1402. | 2.2 | 9 |
| 30 | In-situ and elementally resolved determination of the thickness uniformity of multi-ply films by confocal micro XRF. Applied Radiation and Isotopes, 2014, 90, 84-88. | 1.5 | 9 |
| 31 | A confocal three-dimensional micro X-ray scattering technology based on Rayleigh to Compton ratio for identifying materials with similar density and different weight percentages of low-Z elements. Radiation Physics and Chemistry, 2015, 112, 163-168. | 2.8 | 9 |
| 32 | Authentication of vegetable oils by confocal X-ray scattering analysis with coherent/incoherent scattered X-rays. Food Chemistry, 2016, 210, 435-441. | 8.2 | 9 |
| 33 | Annular beam high-intensity X-ray diffraction based on an ellipsoidal single-bounce monocapillary. Journal of Applied Crystallography, 2016, 49, 627-631. | 4.5 | 9 |
| 34 | Application of particle swarm optimization in the design of a mono-capillary X-ray lens. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 953, 163077. | 1.6 | 9 |
| 35 | First experimental constraints on WIMP couplings in the effective field theory framework from CDEX. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1. | 5.1 | 8 |
| 36 | The application of confocal technology based on polycapillary X-ray optics in surface topography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 721, 73-75. | 1.6 | 7 |

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|---|---|---|---|
| 37 | In situ analysis of electrocrystallization process of metal electrodeposition with confocal energy dispersive X-ray diffraction based on polycapillary X-ray optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 785, 201-205. | 1.6 | 7 |
| 38 | Performance of assembled X-ray optics consisted of a polycapillary X-ray optics and a monocapillary X-ray optics for micro X-ray fluorescence spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 165, 105770. | 2.9 | 7 |
| 39 | Combined optic system based on polycapillary X-ray optics and single-bounce monocapillary optics for focusing X-rays from a conventional laboratory X-ray source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 802, 5-9. | 1.6 | 6 |
| 40 | Energy-dispersive small-angle X-ray scattering with cone collimation using X-ray capillary optics. Review of Scientific Instruments, 2016, 87, 093106. | 1.3 | 6 |
| 41 | Focal construct geometry for high intensity energy dispersive x-ray diffraction based on x-ray capillary optics. Journal of Chemical Physics, 2016, 144, 104201. | 3.0 | 6 |
| 42 | High temperature monitoring of silicon carbide ceramics by confocal energy dispersive X-ray fluorescence spectrometry. Nuclear Instruments & Methods in Physics Research B, 2016, 373, 91-97. | 1.4 | 6 |
| 43 | 13.1 micrometers hard X-ray focusing by a new type monocapillary X-ray optic designed for common laboratory X-ray source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 888, 13-17. | 1.6 | 6 |
| 44 | Measurement of the inner diameter of monocapillary with confocal x-ray scattering technology based on capillary x-ray optics. Applied Optics, 2019, 58, 1291. | 1.8 | 6 |
| 45 | Source apportionment of aerosol particles using polycapillary slightly focusing X-ray lens. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 755-759. | 1.6 | 5 |
| 46 | Identification of origin of single aerosol particles using polycapillary X-ray lens. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 171-174. | 1.4 | 5 |
| 47 | Measurement of grain size of polycrystalline materials with confocal energy dispersive micro-X-ray diffraction technology based on polycapillary X-ray optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 764, 1-6. | 1.6 | 5 |
| 48 | Numerical design of X-ray tabletop Talbot interferometer using polycapillary optics as two-dimensional gratings with high aspect ratio. Optics Communications, 2015, 356, 202-207. | 2.1 | 5 |
| 49 | The three-dimensional elemental distribution based on the surface topography by confocal 3D-XRF analysis. Applied Physics A: Materials Science and Processing, 2016, 122, 1. | 2.3 | 5 |
| 50 | Confocal total reflection X-ray fluorescence technology based on an elliptical monocapillary and a parallel polycapillary X-ray optics. Applied Radiation and Isotopes, 2018, 137, 172-176. | 1.5 | 5 |
| 51 | Study on the X-ray transmission characteristics of monolithic poly-capillary quasi-parallel lens composed with different diameter tubes. Optics Communications, 2019, 439, 295-303. | 2.1 | 5 |
| 52 | Characterizing the inner surface of parabolic monocapillary with contrast-enhanced micro-CT technology and ray-tracing computing method. Optics Communications, 2020, 475, 126182. | 2.1 | 5 |
| 53 | Quasi-parallel X-ray microbeam obtained using a combined system of polycapillary optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 437-439. | 1.6 | 4 |
| 54 | Performance of polycapillary xâ€ray lens for xâ€ray sources with various spot sizes. X-Ray Spectrometry, 2007, 36, 377-380. | 1.4 | 4 |

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|---|---|---|---|
| 55 | Size-resolved source apportionment of aerosol particles using polycapillary X-ray lens with a plateau in its focal spot. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 3554-3560. | 1.4 | 4 |
| 56 | The surface morphology analysis based on progressive approximation method using confocal three-dimensional micro X-ray fluorescence. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 122, 127-131. | 2.9 | 4 |
| 57 | Simulation of X-ray transmission and spatial imaging of polycapillary lenses with square cross-sections. Optics Communications, 2018, 420, 205-210. | 2.1 | 4 |
| 58 | Quantitative analysis of the elemental composition of ion liquid with confocal X-ray fluorescence based on peak to background ratio. Radiation Physics and Chemistry, 2019, 162, 168-171. | 2.8 | 4 |
| 59 | Measuring the average slope error of a single-bounce ellipsoidal glass monocapillary X-ray condenser based on an X-ray source with an adjustable source size. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 934, 36-40. | 1.6 | 4 |
| 60 | Enhancement of properties of high-density material coated glass monocapillary X-ray condenser based on atomic layer deposition. Optics Communications, 2020, 464, 125544. | 2.1 | 4 |
| 61 | Monochromatic X-ray imaging using a combination of doubly curved crystal and polycapillary X-ray lens. Journal of X-Ray Science and Technology, 2015, 23, 141-146. | 1.0 | 3 |
| 62 | Single-bounce Ellipsoidal Capillary for X-ray microscopes: Design and Measurements. Microscopy and Microanalysis, 2018, 24, 284-287. | 0.4 | 3 |
| 63 | Application of confocal X-ray fluorescence based on capillary X-ray optics in nondestructively measuring the inner diameter of monocapillary optics. Optics Communications, 2019, 436, 38-41. | 2.1 | 3 |
| 64 | Confocal threeâ€dimensional microâ€Xâ€ray fluorescence spectroscopy used to retrieve the information covered in printed paper. X-Ray Spectrometry, 2020, 49, 267-273. | 1.4 | 3 |
| 65 | Simulation of optical properties of ellipsoidal monocapillary X-ray optics with inner-surface imperfections. Optics Communications, 2021, 493, 127028. | 2.1 | 3 |
| 66 | Determination of Hepatic Iron Deposition in Drug-Induced Liver Fibrosis in Rats by Confocal Micro-XRF Spectrometry. ACS Omega, 2022, 7, 3738-3745. | 3.5 | 3 |
| 67 | Numerical design of in-line X-ray phase-contrast imaging based on ellipsoidal single-bounce monocapillary. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 746, 33-38. | 1.6 | 2 |
| 68 | Application of a conic glass monocapillary in Beijing synchrotron radiation facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 754, 42-45. | 1.6 | 1 |
| 69 | Numerical design of polycapillary X-ray optics as both a focusing X-ray lens and a vacuum window. Vacuum, 2015, 121, 1-4. | 3.5 | 1 |
| 70 | Confocal three-dimensional micro X-ray fluorescence based on synchrotron radiation for mineral analysis. Spectroscopy Letters, 2017, 50, 545-549. | 1.0 | 1 |
| 71 | Development of a new X-ray scattering instrument based on two polycapillary X-ray optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 984, 164647. | 1.6 | 1 |
| 72 | A passive characterization method of the single-bounce ellipsoidal capillary for the full field transmission X-ray microscopy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1014, 165735. | 1.6 | 1 |

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|---|---|---|---|
| 73 | Full-field X-ray Nano-scope Developed at SSRF. Microscopy and Microanalysis, 2018, 24, 1012-1013. | 0.4 | 0 |
| 74 | Depth-sensitive analysis of metals to investigate the corrosion process in oil pipelines by confocal 3D-XRF and SEM-EDS. Nuclear Instruments & Methods in Physics Research B, 2020, 464, 111-116. | 1.4 | 0 |
| 75 | Poly-capillary x-ray collimating lens composed with channels of different diameters for medical imaging. , 2020, , . | | 0 |
| 76 | A Procedure for the Characterization of Monocapillary X-Ray Lenses as Condensers for Full-Field Transmission X-Ray Microscopes. Frontiers in Physics, 2022, 10, . | 2.1 | 0 |
| 77 | Detailed Simulation of Single-Bounce Capillaries for Various X-Ray Sources. Frontiers in Physics, 0, 10, . | 2.1 | 0 |