# Xiao Liu

List of Publications by Year
in descending order



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|---|---|---|---|
| 28 papers | 1,082 citations | 687363 13 h-index | 580821 25 g-index |
| 28 all docs | 28 docs citations | 28 times ranked | 1079 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Low-temperature thermal conductivity and acoustic attenuation in amorphous solids. Reviews of Modern Physics, 2002, 74, 991-1013. | 45.6 | 323 |
| 2 | Amorphous Solid without Low Energy Excitations. Physical Review Letters, 1997, 78, 4418-4421. | 7.8 | 157 |
| 3 | On the modes and loss mechanisms of a high Q mechanical oscillator. Applied Physics Letters, 2001, 78, 1346-1348. | 3.3 | 94 |
| 4 | High Thermal Conductivity of a Hydrogenated Amorphous Silicon Film. Physical Review Letters, 2009, 102, 035901. | 7.8 | 73 |
| 5 | Hydrogen-Free Amorphous Silicon with No Tunneling States. Physical Review Letters, 2014, 113, 025503. | 7.8 | 67 |
| 6 | Anomalously high thermal conductivity of amorphous Si deposited by hot-wire chemical vapor deposition. Physical Review B, 2010, 81, . | 3.2 | 65 |
| 7 | Excess Specific Heat in Evaporated Amorphous Silicon. Physical Review Letters, 2013, 110, 135901. | 7.8 | 65 |
| 8 | Low-energy excitations in amorphous films of silicon and germanium. Physical Review B, 1998, 58, 9067-9081. | 3.2 | 39 |
| 9 | Two-level systems in evaporated amorphous silicon. Journal of Non-Crystalline Solids, 2015, 426, 19-24. | 3.1 | 29 |
| 10 | Thermal conductivity of amorphous and nanocrystalline silicon films prepared by hot-wire chemical-vapor deposition. Physical Review B, 2017, 96, . | 3.2 | 25 |
| 11 | Thermoelastic loss observed in a high Q mechanical oscillator. Physica B: Condensed Matter, 2002, 316-317, 408-410. | 2.7 | 23 |
| 12 | Dielectric loss extraction for superconducting microwave resonators. Applied Physics Letters, 2020, 116, 194003. | 3.3 | 15 |
| 13 | The effect of ultrasmall grain sizes on the thermal conductivity of nanocrystalline silicon thin films. Communications Physics, 2021, 4, . | 5.3 | 15 |
| 14 | Origin of mechanical and dielectric losses from two-level systems in amorphous silicon. Physical Review Materials, 2021, 5, . | 2.4 | 13 |
| 15 | Internal friction of amorphous and nanocrystalline silicon at low temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 307-313. | 5.6 | 12 |
| 16 | Elastic Properties of Several Silicon Nitride Films. Materials Research Society Symposia Proceedings, 2007, 989, 1. | 0.1 | 11 |
| 17 | Substrate and annealing temperature dependent electrical resistivity of sputtered titanium nitride thin films. Thin Solid Films, 2018, 661, 78-83. | 1.8 | 11 |
| 18 | From amorphous to nanocrystalline: the effect of nanograins in an amorphous matrix on the thermal conductivity of hot-wire chemical-vapor deposited silicon films. Journal of Physics Condensed Matter, 2018, 30, 085301. | 1.8 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | An ultra-high Q silicon compound cantilever resonator for Young's modulus measurements. Review of Scientific Instruments, 2013, 84, 075001. | 1.3 | 8 |
| 20 | Molecular Hydrogen in Hot-Wire Hydrogenated Amorphous Silicon. Materials Research Society Symposia Proceedings, 1998, 507, 595. | 0.1 | 7 |
| 21 | An Overview of Research into Low Internal Friction Optical Coatings by the Gravitational Wave Detection Community. Materials Research, 2018, 21, . | 1.3 | 6 |
| 22 | Elastic Measurements of Amorphous Silicon Films at mK Temperatures. Journal of Low Temperature Physics, 2017, 187, 654-660. | 1.4 | 5 |
| 23 | An Ultra-High <i>Q</i> Silicon Cantilever Resonator for Thin Film Internal Friction and Young's Modulus Measurements. Solid State Phenomena, 0, 184, 325-330. | 0.3 | 3 |
| 24 | Thermoelectric Properties of Nanocrystalline Silicon Films Prepared by Hot-Wire and Plasma-Enhanced Chemical-Vapor Depositions. Journal of Electronic Materials, 2019, 48, 5218-5225. | 2.2 | 3 |
| 25 | Decoupling between propagating acoustic waves and two-level systems in hydrogenated amorphous silicon. Physical Review B, 2021, 104, . | 3.2 | 2 |
| 26 | Structural tunability and origin of two-level systems in amorphous silicon. Physical Review Materials, 2022, 6, . | 2.4 | 1 |
| 27 | Manipulation of Glassy State in Amorphous Selenium by Low-temperature Internal Friction Measurements. Materials Research, 2018, 21, . | 1.3 | 0 |
| 28 | Annealing and Extended Etching Improve a Torsional Resonator for Thin Film Internal Friction Measurements. Materials Research, 2018, 21, . | 1.3 | 0 |