# Bernard Hao-Chih Liu

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 61 papers | 929 citations | 516561 16 h-index | 501076 28 g-index |
| 61 all docs | 61 docs citations | 61 times ranked | 1275 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Synergistic surface-enhanced Raman scattering effect to distinguish live SARS-CoV-2 S pseudovirus. Analytica Chimica Acta, 2022, 1193, 339406. | 2.6 | 10 |
| 2 | A multilevel nonvolatile visible light photomemory based on charge transfer in conformal zincâ€“tin oxide/Au nanoparticle heterostructures. Journal of Materials Chemistry C, 2022, 10, 8181-8191. | 2.7 | 6 |
| 3 | Photodegradation pathways of CH3NH3PbI3 organic perovskite polycrystalline film observed by in-situ scanning probe microscopy. Applied Surface Science, 2021, 545, 149081. | 3.1 | 1 |
| 4 | Lewis bases: promising additives for enhanced performance of perovskite solar cells. Materials Today Energy, 2021, 22, 100847. | 2.5 | 24 |
| 5 | Non-Thermal Reactive N2/He Plasma Exposure to Inhibit Epithelial Head and Neck Tumor Cells. Coatings, 2021, 11, 1284. | 1.2 | 1 |
| 6 | Nanoscale mapping of humid degradation-induced local mechanical property variation in CH3NH3PbI3 polycrystalline film by scanning probe microscopy. Applied Surface Science, 2020, 507, 145078. | 3.1 | 12 |
| 7 | In-Situ Investigation on Nanoscopic Biomechanics of Streptococcus mutans at Low pH Citric Acid Environments Using an AFM Fluid Cell. International Journal of Molecular Sciences, 2020, 21, 9481. | 1.8 | 3 |
| 8 | Dielectric Nanoparticles Coated upon Silver Hollow Nanosphere as an Integrated Design to Reinforce SERS Detection of Trace Ampicillin in Milk Solution. Coatings, 2020, 10, 390. | 1.2 | 8 |
| 9 | Role of phase transformation in possible wear mechanisms in silicon microelectromechanical-system devices. Materials Chemistry and Physics, 2020, 245, 122765. | 2.0 | 0 |
| 10 | SERS-Active Substrate with Collective Amplification Design for Trace Analysis of Pesticides. Nanomaterials, 2019, 9, 664. | 1.9 | 20 |
| 11 | Fabrication of composite probe electrode used for localized impedance analysis of solid-state electrolyte LATP. Solid State Ionics, 2019, 336, 11-18. | 1.3 | 4 |
| 12 | Micro-colonization of arsenic-resistant Staphylococcus sp. As-3 on arsenopyrite (FeAsS) drives arsenic mobilization under anoxic sub-surface mimicking conditions. Science of the Total Environment, 2019, 669, 527-539. | 3.9 | 20 |
| 13 | Ag Nanostructures with Spikes on Adhesive Tape as a Flexible Sers-Active Substrate for In Situ Trace Detection of Pesticides on Fruit Skin. Nanomaterials, 2019, 9, 1750. | 1.9 | 22 |
| 14 | Development of manganese-based thin-film probe via hydrothermal process for localized electrochemical impedance analysis of a solid-state electrolyte LiPON. Materials Letters, 2018, 216, 295-298. | 1.3 | 1 |
| 15 | Modified flat-punch model for hyperelastic polymeric and biological materials in nanoindentation. Mechanics of Materials, 2018, 118, 17-21. | 1.7 | 14 |
| 16 | Solution-processed dual-layer Pt-SiO2 core-shell nanoparticles for nanocrystal memory with multi-bit storage states. Journal of Alloys and Compounds, 2018, 749, 369-377. | 2.8 | 0 |
| 17 | Screw extrusion-based additive manufacturing of PEEK. Materials and Design, 2018, 140, 209-221. | 3.3 | 116 |
| 18 | Continuous Waste Cooking Oil Transesterification with Microwave Heating and Strontium Oxide Catalyst. Chemical Engineering and Technology, 2018, 41, 192-198. | 0.9 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Strontium Oxide Deposited onto a Load-Bearable and Porous Titanium Matrix as Dynamic and High-Surface-Contact-Area Catalysis for Transesterification. Nanomaterials, 2018, 8, 973. | 1.9 | 5 |
| 20 | Extending the limits of Pt/C catalysts with passivation-gas-incorporated atomic layer deposition. Nature Catalysis, 2018, 1, 624-630. | 16.1 | 63 |
| 21 | Gold Nanoparticle-Coated ZrO2-Nanofiber Surface as a SERS-Active Substrate for Trace Detection of Pesticide Residue. Nanomaterials, 2018, 8, 402. | 1.9 | 21 |
| 22 | Identification of Characteristic Macromolecules of Escherichia coli Genotypes by AtomicÂForceÂMicroscope Nanoscale Mechanical Mapping. Nanoscale Research Letters, 2018, 13, 35. | 3.1 | 4 |
| 23 | Development of all-solution-processed nanocrystal memory. Journal of Alloys and Compounds, 2017, 698, 484-494. | 2.8 | 4 |
| 24 | Nanoplasmonic Au/Ag/Au nanorod arrays as SERS-active substrate for the detection of pesticides residue. Journal of the Taiwan Institute of Chemical Engineers, 2017, 75, 287-291. | 2.7 | 31 |
| 25 | In-situ , time-lapse study of extracellular polymeric substance discharge in Streptococcus mutans biofilm. Colloids and Surfaces B: Biointerfaces, 2017, 150, 98-105. | 2.5 | 18 |
| 26 | Structureâ€dependent behaviours of skin layers studied by atomic force microscopy. Journal of Microscopy, 2017, 267, 265-271. | 0.8 | 8 |
| 27 | Dual properties of zirconia coated porous titanium for a stiffness enhanced bio-scaffold. Materials and Design, 2017, 132, 13-21. | 3.3 | 14 |
| 28 | Ageing, Shocks and Wear Mechanisms in ZTA and the Long-Term Performance of Hip Joint Materials. Materials, 2017, 10, 569. | 1.3 | 23 |
| 29 | Hydrothermal Fabrication of Highly Porous Titanium Bio-Scaffold with a Load-Bearable Property. Materials, 2017, 10, 726. | 1.3 | 8 |
| 30 | Nanoscale electrochemical characterization of a solid-state electrolyte using a manganese-based thin-film probe. Nanoscale, 2016, 8, 19978-19983. | 2.8 | 4 |
| 31 | Probed adhesion force of living lung cells with a tip-modified atomic force microscope. Biointerphases, 2016, 11, 04B311. | 0.6 | 3 |
| 32 | Practical assessment of nanoscale indentation techniques for the biomechanical properties of biological materials. Mechanics of Materials, 2016, 98, 11-21. | 1.7 | 17 |
| 33 | AuGa2on focused Ga ion beam-fabricated Au nanorod array for trace detection of melamine cyanurate in milk solution. Applied Physics Express, 2015, 8, 017001. | 1.1 | 3 |
| 34 | Focused-ion-beam-fabricated homogeneous acute-angled Au nanorods for surface-enhanced Raman scattering. Applied Physics Express, 2015, 8, 052402. | 1.1 | 0 |
| 35 | Oriented association of multiwall carbon nanotubes upon efficient epitaxial organization of polyfluorene. Carbon, 2015, 93, 342-352. | 5.4 | 8 |
| 36 | Intense Raman scattering on hybrid Au/Ag nanoplatforms for the distinction of MMP-9-digested collagen type-I fiber detection. Biosensors and Bioelectronics, 2015, 72, 61-70. | 5.3 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Ag nanoclusters on ZnO nanodome array as hybrid SERS-active substrate for trace detection of malachite green. Sensors and Actuators B: Chemical, 2015, 207, 430-436. | 4.0 | 99 |
| 38 | Shape effect of torsional resonance mode AFM cantilevers operated in fluids. Surface Topography: Metrology and Properties, 2014, 2, 035003. | 0.9 | 0 |
| 39 | Characterization of Localized Electrochemical Properties of Si3N4-TiC Ceramic Nanocomposite Using Dual-Electrode Scanning Probes. Materials Research Society Symposia Proceedings, 2014, 1712, 7. | 0.1 | 0 |
| 40 | Effects of Annealing on Magnetic Properties of Electrical Steel and Performances of SRM After Punching. IEEE Transactions on Magnetics, 2014, 50, 1-4. | 1.2 | 26 |
| 41 | Design, fabrication, and characterization of electroless Niâ€“P alloy films for micro heating devices. Thin Solid Films, 2013, 537, 263-268. | 0.8 | 14 |
| 42 | Probing the Conductance and Microstructure Heterogeneity of <scp><scp>Si</scp></scp><sub>3</sub><scp><scp>N</scp></scp><sub>4</sub>/<scp><scp>TiC</scp></scp>â€Based Nanocomposite at the Nanoscale by Scanning Impedance Microscopy. Journal of the American Ceramic Society, 2013, 96, 2311-2315. | 1.9 | 3 |
| 43 | Linking microstructure evolution and impedance behaviors in spark plasma sintered Si3N4/TiC and Si3N4/TiN ceramic nanocomposites. Ceramics International, 2013, 39, 4205-4212. | 2.3 | 8 |
| 44 | In situ synchrotron X-ray diffraction study on the improved dehydrogenation performance of NaAlH4â€“Mg(AlH4)2 mixture. Journal of Alloys and Compounds, 2013, 577, 6-10. | 2.8 | 4 |
| 45 | Focused-ion-beam-fabricated Au nanorods coupled with Ag nanoparticles used as surface-enhanced Raman scattering-active substrate for analyzing trace melamine constituents in solution. Analytica Chimica Acta, 2013, 800, 56-64. | 2.6 | 45 |
| 46 | Nanomechanical probing of the septum and surrounding substances on Streptococcus mutans cells and biofilms. Colloids and Surfaces B: Biointerfaces, 2013, 110, 356-362. | 2.5 | 4 |
| 47 | Ion-beam-sputter deposited titanium nitride thin films for conductive atomic force microscope probes. Thin Solid Films, 2013, 529, 317-321. | 0.8 | 10 |
| 48 | In situbiosensing of the nanomechanical property and electrochemical spectroscopy ofStreptococcus mutans-containing biofilms. Journal Physics D: Applied Physics, 2013, 46, 275401. | 1.3 | 13 |
| 49 | Indentation Deformation and Microcracking in Î²â€<scp><scp>Si</scp></scp><sub>3</sub><scp><scp>N</scp></scp><sub>4</sub>â€Based Nanoceramic. Journal of the American Ceramic Society, 2012, 95, 1421-1428. | 1.9 | 8 |
| 50 | Direct deformation study of AFM probe tips modified by hydrophobic alkylsilane self-assembled monolayers. Ultramicroscopy, 2011, 111, 1124-1130. | 0.8 | 7 |
| 51 | Nanostructure and conductivity study of yttria doped zirconia films deposited on samaria doped ceria. Applied Surface Science, 2011, 257, 7871-7875. | 3.1 | 5 |
| 52 | Simulation-aided design and fabrication of nanoprobes for scanning probe microscopy. Ultramicroscopy, 2011, 111, 337-341. | 0.8 | 5 |
| 53 | Recent CD AFM probe developments for sub-45 nm technology nodes. Proceedings of SPIE, 2008, , . | 0.8 | 6 |
| 54 | TEM validation of CD AFM image reconstruction: part II. , 2008, , . | | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Advanced CD-AFM probe tip shape characterization for metrology accuracy and throughput. , 2007, , . | | 14 |
| 56 | TEM validation of CD AFM image reconstruction. , 2007, , . | | 10 |
| 57 | Critical dimension AFM tip characterization and image reconstruction applied to the 45-nm node. , 2006, 6152, 945. | | 15 |
| 58 | Carbon nanotube AFM probes for microlithography process control. , 2006, 6152, 1005. | | 11 |
| 59 | Advanced atomic force microscopy probes: Wear resistant designs. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 3090. | 1.6 | 29 |
| 60 | Rapid prototyping methods of silicon carbide micro heat exchangers. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2005, 219, 525-538. | 1.5 | 10 |
| 61 | Rapid prototyping and manufacturing by gelcasting of metallic and ceramic slurries. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 334, 187-192. | 2.6 | 53 |