

Francesco Iacoviello

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

1,581
citations

236925

25
h-index

345221

36
g-index

70
all docs

70
docs citations

70
times ranked

2011
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | In-situ X-ray tomographic imaging study of gas and structural evolution in a commercial Li-ion pouch cell. <i>Journal of Power Sources</i> , 2022, 520, 230818. | 7.8 | 17 |
| 2 | A multi-method assessment of 3D printed micromorphological osteological features. <i>International Journal of Legal Medicine</i> , 2022, 136, 1391-1406. | 2.2 | 6 |
| 3 | An open-source platform for 3D-printed redox flow battery test cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1529-1540. | 4.9 | 7 |
| 4 | Motion-enhancement assisted digital image correlation of lithium-ion batteries during lithiation. <i>Journal of Power Sources</i> , 2022, 527, 231150. | 7.8 | 4 |
| 5 | Anomalous transport of colloids in heterogeneous porous media: A multi-scale statistical theory. <i>Journal of Colloid and Interface Science</i> , 2022, 617, 94-105. | 9.4 | 11 |
| 6 | In situ x-ray computed tomography of zinc-air primary cells during discharge: correlating discharge rate to anode morphology. <i>JPhys Materials</i> , 2022, 5, 014001. | 4.2 | 4 |
| 7 | Metabolically diverse primordial microbial communities in Earth's oldest seafloor-hydrothermal jasper. <i>Science Advances</i> , 2022, 8, eabm2296. | 10.3 | 24 |
| 8 | Fascicular Organisation and Neuroanatomy of the Porcine and Human Vagus Nerves: Allowing for Spatially Selective Vagus Nerve Stimulation. <i>FASEB Journal</i> , 2022, 36, . | 0.5 | 1 |
| 9 | Ultra high-resolution biomechanics suggest that substructures within insect mechanosensors decisively affect their sensitivity. <i>Journal of the Royal Society Interface</i> , 2022, 19, 20220102. | 3.4 | 9 |
| 10 | The Time-Dependent Role of Bisphosphonates on Atherosclerotic Plaque Calcification. <i>Journal of Cardiovascular Development and Disease</i> , 2022, 9, 168. | 1.6 | 3 |
| 11 | Novel laboratory investigation of huff-n-puff gas injection for shale oils under realistic reservoir conditions. <i>Fuel</i> , 2021, 284, 118950. | 6.4 | 43 |
| 12 | 3D Imaging of Lithium Protrusions in Solid-State Lithium Batteries using X-Ray Computed Tomography. <i>Advanced Functional Materials</i> , 2021, 31, 2007564. | 14.9 | 31 |
| 13 | Prevention of lithium-ion battery thermal runaway using polymer-substrate current collectors. <i>Cell Reports Physical Science</i> , 2021, 2, 100360. | 5.6 | 22 |
| 14 | A Multiscale X-Ray Tomography Study of the Cycled-Induced Degradation in Magnesium-Sulfur Batteries. <i>Small Methods</i> , 2021, 5, e2001193. | 8.6 | 10 |
| 15 | A spinal organ of proprioception for integrated motor action feedback. <i>Neuron</i> , 2021, 109, 1188-1201.e7. | 8.1 | 36 |
| 16 | High-resolution imaging of depth filter structures using X-ray computed tomography. <i>Journal of Materials Science</i> , 2021, 56, 15313. | 3.7 | 1 |
| 17 | Microstructure analysis and image-based modelling of face masks for COVID-19 virus protection. <i>Communications Materials</i> , 2021, 2, . | 6.9 | 30 |
| 18 | Aqueous Inks of Pristine Graphene for 3D Printed Microsupercapacitors with High Capacitance. <i>ACS Nano</i> , 2021, 15, 15342-15353. | 14.6 | 60 |

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|----|---|------|-----------|
| 19 | Liposome Sterile Filtration Characterization via X-ray Computed Tomography and Confocal Microscopy. <i>Membranes</i> , 2021, 11, 905. | 3.0 | 1 |
| 20 | Packed bed compression visualisation and flow simulation using an erosion-dilation approach. <i>Journal of Chromatography A</i> , 2020, 1611, 460601. | 3.7 | 7 |
| 21 | Enhanced composite plate impact damage detection and characterisation using X-Ray refraction and scattering contrast combined with ultrasonic imaging. <i>Composites Part B: Engineering</i> , 2020, 181, 107579. | 12.0 | 37 |
| 22 | Evidence of structural cavities in 3D printed acetabular cups for total hip arthroplasty. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 1779-1789. | 3.4 | 14 |
| 23 | Microporous Biodegradable Films Promote Therapeutic Angiogenesis. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000806. | 7.6 | 7 |
| 24 | Imaging fascicular organization of rat sciatic nerves with fast neural electrical impedance tomography. <i>Nature Communications</i> , 2020, 11, 6241. | 12.8 | 24 |
| 25 | Rapid Preparation of Geometrically Optimal Battery Electrode Samples for Nano Scale X-ray Characterisation. <i>Journal of the Electrochemical Society</i> , 2020, 167, 060512. | 2.9 | 7 |
| 26 | Correlative acoustic time-of-flight spectroscopy and X-ray imaging to investigate gas-induced delamination in lithium-ion pouch cells during thermal runaway. <i>Journal of Power Sources</i> , 2020, 470, 228039. | 7.8 | 30 |
| 27 | MicroCT optimisation for imaging fascicular anatomy in peripheral nerves. <i>Journal of Neuroscience Methods</i> , 2020, 338, 108652. | 2.5 | 29 |
| 28 | The multiscale hierarchical structure of <i>Heloderma suspectum</i> osteoderms and their mechanical properties. <i>Acta Biomaterialia</i> , 2020, 107, 194-203. | 8.3 | 16 |
| 29 | Dendritic silver self-assembly in molten-carbonate membranes for efficient carbon dioxide capture. <i>Energy and Environmental Science</i> , 2020, 13, 1766-1775. | 30.8 | 15 |
| 30 | Correlative study of microstructure and performance for porous transport layers in polymer electrolyte membrane water electrolyzers by X-ray computed tomography and electrochemical characterization. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19519-19532. | 7.1 | 41 |
| 31 | Virtual unrolling of spirally-wound lithium-ion cells for correlative degradation studies and predictive fault detection. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2972-2976. | 4.9 | 37 |
| 32 | X-ray Nano-computed Tomography of Electrochemical Conversion in Lithium-ion Battery. <i>ChemSusChem</i> , 2019, 12, 3550-3561. | 6.8 | 14 |
| 33 | The effect of non-uniform compression and flow-field arrangements on membrane electrode assemblies - X-ray computed tomography characterisation and effective parameter determination. <i>Journal of Power Sources</i> , 2019, 426, 97-110. | 7.8 | 46 |
| 34 | X-ray tomography and modelling study on the mechanical behaviour and performance of metal foam flow-fields for polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 7583-7595. | 7.1 | 34 |
| 35 | Miocene Glacial Dynamics Recorded by Variations in Magnetic Properties in the ANDRILL-2A Drill Core. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 2297-2312. | 3.4 | 9 |
| 36 | The Imaging Resolution and Knudsen Effect on the Mass Transport of Shale Gas Assisted by Multi-length Scale X-Ray Computed Tomography. <i>Scientific Reports</i> , 2019, 9, 19465. | 3.3 | 22 |

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|----|---|------|-----------|
| 37 | Pore structure development during hydration of tricalcium silicate by X-ray nano-imaging in three dimensions. <i>Construction and Building Materials</i> , 2019, 200, 318-323. | 7.2 | 21 |
| 38 | Examining the effect of the secondary flow-field on polymer electrolyte fuel cells using X-ray computed radiography and computational modelling. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 1139-1150. | 7.1 | 15 |
| 39 | Multi-scale Imaging of Polymer Electrolyte Fuel Cells using X-ray Micro- and Nano-Computed Tomography, Transmission Electron Microscopy and Helium Ion Microscopy. <i>Fuel Cells</i> , 2019, 19, 35-42. | 2.4 | 31 |
| 40 | A Structure and Durability Comparison of Membrane Electrode Assembly Fabrication Methods: Self-Assembled Versus Hot-Pressed. <i>Journal of the Electrochemical Society</i> , 2018, 165, F3045-F3052. | 2.9 | 34 |
| 41 | In situ compression and X-ray computed tomography of flow battery electrodes. <i>Journal of Energy Chemistry</i> , 2018, 27, 1353-1361. | 12.9 | 42 |
| 42 | 4D nano-tomography of electrochemical energy devices using lab-based X-ray imaging. <i>Nano Energy</i> , 2018, 47, 556-565. | 16.0 | 37 |
| 43 | Effect of Microstructure of Porous Transport Layer on Performance in Polymer Electrolyte Membrane Water Electrolyser. <i>Energy Procedia</i> , 2018, 151, 111-119. | 1.8 | 33 |
| 44 | Improved X-ray computed tomography reconstruction of the largest fragment of the Antikythera Mechanism, an ancient Greek astronomical calculator. <i>PLoS ONE</i> , 2018, 13, e0207430. | 2.5 | 8 |
| 45 | Use of Photon Scattering Interactions in Diagnosis and Treatment of Disease. , 2018, , 135-158. | | 0 |
| 46 | Three-Dimensional Visualization of Conductive Domains in Battery Electrodes with Contrast-Enhancing Nanoparticles. <i>ACS Applied Energy Materials</i> , 2018, 1, 4479-4484. | 5.1 | 20 |
| 47 | Evaluating microstructure evolution in an SOFC electrode using digital volume correlation. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2625-2635. | 4.9 | 4 |
| 48 | Thermally Driven SOFC Degradation in 4D: Part II. Macroscale. <i>Journal of the Electrochemical Society</i> , 2018, 165, F932-F941. | 2.9 | 12 |
| 49 | Three dimensional characterisation of chromatography bead internal structure using X-ray computed tomography and focused ion beam microscopy. <i>Journal of Chromatography A</i> , 2018, 1566, 79-88. | 3.7 | 13 |
| 50 | Thermally Driven SOFC Degradation in 4D: Part I. Microscale. <i>Journal of the Electrochemical Society</i> , 2018, 165, F921-F931. | 2.9 | 14 |
| 51 | Three-Phase Segmentation of Solid Oxide Fuel Cell Anode Materials Using Lab Based X-ray Nano-Computed Tomography. <i>Fuel Cells</i> , 2017, 17, 75-82. | 2.4 | 26 |
| 52 | Investigation of Hot Pressed Polymer Electrolyte Fuel Cell Assemblies via X-ray Computed Tomography. <i>Electrochimica Acta</i> , 2017, 242, 125-136. | 5.2 | 74 |
| 53 | Laser-preparation of geometrically optimised samples for X-ray nano-CT. <i>Journal of Microscopy</i> , 2017, 267, 384-396. | 1.8 | 54 |
| 54 | Correlation of X-ray diffraction signatures of breast tissue and their histopathological classification. <i>Scientific Reports</i> , 2017, 7, 12998. | 3.3 | 14 |

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|----|--|-----|-----------|
| 55 | Multimodal Phase-Based X-Ray Microtomography with Nonmicrofocal Laboratory Sources. <i>Physical Review Applied</i> , 2017, 8, . | 3.8 | 14 |
| 56 | Quantifying the anisotropy and tortuosity of permeable pathways in clay-rich mudstones using models based on X-ray tomography. <i>Scientific Reports</i> , 2017, 7, 14838. | 3.3 | 97 |
| 57 | X-ray Phase-Contrast Radiography and Tomography with a Multiaperture Analyzer. <i>Physical Review Letters</i> , 2017, 118, 243902. | 7.8 | 27 |
| 58 | Antarctic ice sheet sensitivity to atmospheric CO ₂ variations in the early to mid-Miocene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 3453-3458. | 7.1 | 133 |
| 59 | Environmental magnetic implications of magnetofossil occurrence during the Middle Eocene Climatic Optimum (MECO) in pelagic sediments from the equatorial Indian Ocean. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 441, 212-222. | 2.3 | 26 |
| 60 | Early Miocene Antarctic glacial history: new insights from heavy mineral analysis from ANDRILL AND-2A drill core sediments. <i>International Journal of Earth Sciences</i> , 2015, 104, 853-872. | 1.8 | 2 |
| 61 | Geosources for ceramic production: The clays from the Neogene–Quaternary Albegna Basin (southern Tuscany). <i>Applied Clay Science</i> , 2014, 91-92, 105-116. | 5.2 | 17 |
| 62 | Enhanced primary productivity and magnetotactic bacterial production in response to middle Eocene warming in the Neo-Tethys Ocean. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2014, 414, 32-45. | 2.3 | 37 |
| 63 | Alteration of volcanic deposits in the ANDRILL AND-1B core: Influence of paleodeposition, eruptive style, and magmatic composition. , 2013, 9, 275-286. | | 2 |
| 64 | Clay minerals in cave sediments and terra rossa soils in the Montagnola Senese karst massif (Italy). <i>Geological Quarterly</i> , 2013, 57, . | 0.2 | 10 |
| 65 | Provenance and geological significance of red mud and other clastic sediments of the Mugnano cave (Montagnola Senese, Italy). <i>International Journal of Speleology</i> , 2012, 41, 317-328. | 1.0 | 29 |
| 66 | Evolution with depth from detrital to authigenic smectites in sediments from AND-2A drill core (McMurdo Sound, Antarctica). <i>Clay Minerals</i> , 2012, 47, 481-498. | 0.6 | 19 |