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Research Interests

Ferroelectrics, Scanning Probe Microscopy, Local electrochemistry in Batteries & Fuel cells, Nonlinear Optics

Research Output

Anomalous Motion of Charged Domain Walls and Associated Negative Capacitance in Copper-Chlorine Boracite

Guy, J., Cochard, C., Aguado-Puente, P., Soergel, E., Whatmore, R., Conroy, M., Moore, K., Courtney, E., Harvey, A., Bangert, U., Kumar, A., McQuaid, R. & Gregg, M., 18 Mar 2021, In: *Advanced Materials*. 2008068.

Controlling the macroscopic electrical properties of reduced graphene oxide by nanoscale writing of electronic channels

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Direct Processing of PbZr_{0.53}Ti_{0.47}O₃ Films on Glass and Polymeric Substrates

Yao, Y., Naden, A., Zhang, F., Edwards, D., Joshi, P., Rodriguez, B. J., Kumar, A. & Bassiri-Gharb, N., 01 Dec 2020, In: *Journal of the European Ceramic Society*. 40, 15, p. 5369-5375

Elastic distortion determining conduction in BiFeO₃ phase boundaries

Holsgrove, K. M., Duchamp, M., Moreno, M. S., Bernier, N., Naden, A. B., Guy, J. G. M., Browne, N., Gupta, A., Gregg, M., Kumar, A. & Arredondo-Arechavala, M., 27 Jul 2020, In: *RSC Advances*. 10, p. 27954-27960 7 p.

Replacing the Metal Electrodes in Triboelectric Nanogenerators: High-Performance Laser-Induced Graphene Electrodes

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Photochemically patterned metal nanoparticle Strontium Barium Niobate surfaces with tunable wettability, enhanced Raman scattering and fluorescence emission

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Revealing the interplay of structural phase transitions and ferroelectric switching in mixed phase BiFeO₃

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Correction: Giant resistive switching in mixed phase BiFeO₃ via phase population control

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Giant Resistive Switching in Mixed Phase BiFeO₃ via phase population control

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02/07/2019 → ...