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Microscopy of Metal Oxide Nanofibers NICHOLAS BJELAC, NICOLE SCHAFER, NENAD STOJILOVIC, Physics Department, John Carroll University, SOO JIN PARK, GEORGE CHASE, Department of Chemical and Biomolecular Engineering, The University of Akron — Using electrospinning we are able to produce a variety of metal oxide nanofibers (e.g., Al2O3, TiO2, ZnO) that are primarily of interest in high-temperature applications. In particular nanofibers are obtained from electrospinning a metal precursor solution mixed with organic polymers. Pure metal oxide nanofibers are then obtained by removing precursors by annealing. We study the surface morphology of these electrospun nanofibers using field-emission scanning electron microscopy and atomic force microscopy.

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