Ultra-Long Zinc Oxide Nanowires and Boron Doping Based on Ionic Liquid Assisted Thermal Chemical Vapor Deposition Growth

Andreas Menzel^{*,†}, Kris Komin[†], Yang Yang[†], Firat Güder[†], Vanessa Trouillet[‡], Margit Zacharias[†]

[*] Corresponding author>> E-mail: <u>andreas.menzel@imtek.uni-freiburg.de</u>

[†]Laboratory for Nanotechnology, Department of Microsystems Engineering, University of Freiburg, Freiburg 79110, Germany

[‡] Institute for Applied Materials (IAM) and Karlsruhe Nano Micro Facility (KNMF), Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen, Germany



Figure S1: Scanning electron microscope image of ZnO nanowires grown by the ionic liquid assisted thermal CVD approach. The top view illustrates especially at the edge of the sample the typical lengths of the nanowires. In this case the nanowires were grown within a time of 30 minutes and lengths >200 μ m were achieved within that growth time.



Figure S2: Bright-field TEM image of a kinked ionic liquid assisted grown ZnO nanowire.