Ultraviolet emission of amorphous SiO$_{2+x}$ nanowires with connected bead-chain morphology

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Electronic Supplementary Information

Fig. S1 Schematic of the experimental set up for growth of SiO$_{2+x}$ nanowires in a horizontal tube furnace with different temperatures.
Fig. S2 (a) TEM image of SiO$_{2+x}$ nanowire prepared at lower temperature (~ 400°C). (b) The corresponding electron diffraction pattern recorded from the region, showing the nanowire had an amorphous phase structure.
Fig. S3 EDX spectrum of a quartz sample with high purity.
Fig. S4 FTIR spectrum of the SiO$_{2+x}$ nanowires prepared at lower temperature (~ 400°C).
Fig. S5 Photoluminescence spectra of the synthesized SiO$_{2+x}$ nanowires grown at different temperatures.