

Growth of silicon nanowire and zinc oxide nanowire by VLS method

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Silicon nanowire and Zinc oxide nanowire were grown on the gold deposited silicon wafer by thermal evaporation. After evaporation, nanowires were synthesized on substrate. The nanowires on the substrates were systematically studied by scanning electron microscopy, transmission electron microscopy and X-ray diffraction. The results showed that the successful growth of crystalline core surrounded by an amorphous silicon oxide shell using the thermal evaporation combined with the VLS and VS growth mechanism.