

Copper doped zinc oxide micro- and nanostructures for room-temperature sensorial applications

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Abstract:

Detection of hydrogen gas is important for safety reasons. To obtain improved hydrogen sensing performances for miniaturized sensors, copper doping in zinc oxide micro- and nanostructures were investigated. Samples were grown by hydrothermal technique at relatively low temperature and studied by X-ray diffraction, micro-Raman, SEM and sensorial techniques. It is found evidence on the improvement of the sensorial properties due to copper-doping in zinc oxide rods-like structures.

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