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Production of Size-Selected Tin Nanoclusters for Device Applications

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Abstract : This work reports on the fabrication of tin nanoclusters by sputtering and inert-gas condensation inside an ultra-high vacuum compatible system. This technique allows to fine tune the size and yield of nanoclusters by controlling the nanocluster source parameters. The produced nanoclusters are deposited on SiO2/Si substrate with pre-formed electrical electrodes to produce a nanocluster device. Those devices can be potentially used for gas sensor applications.

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