Gas Sensing Films Using Laser Annealing for MEMS Applications

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A high performance gas sensor is fabricated using high power impulse magnetron sputtering (HiPIMS) process with ZnO as the sensing material which is deposited on micro electro mechanical systems (MEMS) device. The morphology and nanostructure properties of ZnO were tested with XRD, SEM, EDS and XPS. Gas-sensing films operate at different powers and times using laser annealing. Various gas sensing properties will be tested in micro electro mechanical systems (MEMS) device.

Keywords: ZnO, gas sensor, MEMS device, high power impulse magnetron sputtering (HiPIMS).

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