

Nanostructured ZnO Sensor

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Nanostructured powders of ZnO were prepared using ultrasonic atomization technique. The prepared powders were characterized using X-ray diffraction, scanning electron microscopy, transmission electron microscopy and elemental analysis using EDAX. It was observed from XRD and TEM that the powder consisted of nanocrystallites with sizes less than 20 nm. It was confirmed from TEM analysis that the crystallites were nearly spherical in shape. Furthermore this nanostructured ZnO powder is used to prepared thick films using screen-printing techniques. Thick film is used as sensor to test the conventional gas and simulant of highly toxic chemical warfare agents. The thick film sensor gives maximum response to Ammonia and DMMP- a simulant of Sarin

Biography

Dr. Anil Ramdas Bari has completed his PhD at the age of 30 years from Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon. He is the Head of Department of Physic, IQAC / NAAC Coordinator and NSS Programme Officer of Arts, Commerce and Science College, Bodwad. He has published more than 47 papers in reputed journals and presented more than 80 research papers in seminars, conferences and workshops and over 100 on online mode. He attained more than 60 online webinars. He has been serving as an editorial board member of reputed journals. He has participated as an Organizing Committee Member in the Scientific Committee of 17 conferences and associations as well as served as a reviewer in a wide range of National and International Journals. He has chaired the sessions of the International Conferences and member of various scientific societies. His Scopus h-index is 11, Google Scholar h-index is 16 and Google Scholar i10-index is 20. He is an Executive Member of the Board of Studies, Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti), Pune and Academic Councillor of Indira Gandhi National Open University, New Delhi.

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