

Chemical Sensor using Pt –loaded ZnO Thick Film

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Abstract

Powders of nanostructured were prepared using ultrasonic atomization technique. These powders were characterized using XRD, SEM, EDAX and TEM. The average grain size was observed to be near about 20 nm. Thick films of this powder were prepared using screen printing technique. Platinum is loaded on nanostructured ZnO films using dipping pure ZnO films into an aqueous solution of chloroplatinic acid for different intervals of time. The detection of the pure and Pt-loaded nanostructured ZnO thick films was tested on exposure of hazardous chemical i.e simulants of CWA such as, dimethyl methyl phosphonate, 2-chloroethyl ethyl sulfide and 2-chloroethyl phenyl sulfide. Both the pure and Pt-ZnO thick films showed higher response to DMMP.

Received Date: 3 July, 2022

Accepted Date: 10 July, 2022

Published Date: 29 July, 2022

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 48 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 120 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 been given Keynote Speech at 03 the International Conferences. He has chaired the sessions of the International Conferences and member of various scientific societies.