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PUBLICATION OF THE PATENT OFFICE

INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

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(57) Abstract :

Disclosed is a method of synthesis of polymer nanocomposites, includes preparing (102) a conjugated polymer by dissolving p-phenylenediamine in acetonitrile, adding pyrrole and concentrated nitric acid as an oxidizing agent, refluxing the mixture, cooling, precipitating, washing, drying, and purifying, synthesizing (104) Ag (silver) doped ZnO by dissolving zinc acetate in methanol, adding oxalic acid and AgNO₃, stirring, drying, and heating in a muffle furnace, synthesizing (106) Co (cobalt) doped ZnO by mixing ZnCl₂ solution with CoCl₂·6H₂O, adding NaOH, stirring, filtering, washing, and calcining, and preparing (108) nanocomposites by mixing the polymer with Ag@ZnO and Co@ZnO with the addition of polyvinylidene difluoride (PVDF) as a binding agent. The thin film sensors are fabricated by way of these nanocomposites. These sensor films showed good selectivity and sensitivity in sensing ethanol vapour in the room temperature.

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