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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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(51) International classification	:C08L29/04, C08F222/08, C08J3/00, C08J5/18, C08L35/06, G01N33/00	(71) Name of Applicant : 1)R. V. College of Engineering Address of Applicant :Mysore Road, R.V. Vidyaniketan post, Bengaluru - 560059, Karnataka, India. Bengaluru Karnataka India
(31) Priority Document No	:NA	(72) Name of Inventor :
(32) Priority Date	:NA	1)Raviraj Kusanur
(33) Name of priority country	:NA	2)Vishnumurthy K A
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(57) Abstract :

The present invention discloses a method for synthesizing a poly(OxyDB-codiacetodinitrile) polymer nanocomposite sensor film for methylamine gas sensing applications. The method involves a multi-step process, including the synthesis of the polymer, the synthesis of ZnO or Co-ZnO nanomaterials, and the fabrication of the nanocomposite film. The poly(OxyDB-co-diacetodinitrile) polymer is synthesized through a two-step reaction, resulting in a pure polymer with desirable properties. The ZnO or Co- ZnO nanomaterials are prepared via chemical precipitation and calcination processes. The nanocomposite film is then obtained by mechanically mixing the polymer with different weight percentages of the nanomaterials. The resulting nanocomposite sensor film exhibits improved sensitivity, selectivity, and stability for methylamine gas sensing. The method offers a reliable and efficient approach for the preparation of polymer-based nanocomposite sensor films, enabling their application in various gas sensing fields such as environmental monitoring, food processing, and industrial safety. FIG. 1

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