



*DST-SERB Sponsored*  
**INTERNATIONAL CONFERENCE ON  
FUNCTIONAL MATERIALS  
(ICFM)**

7<sup>th</sup> & 8<sup>th</sup> September 2017

**SOUVENIR**



*Organized by*

***PG AND RESEARCH DEPARTMENT OF CHEMISTRY***

***THIAGARAJAR COLLEGE, MADURAI 625 009***

(An autonomous institution affiliated to Madurai Kamaraj University)

Re-Accredited with 'A' Grade by NAAC

[www.tcarts.in](http://www.tcarts.in)

**International Conference on Functional Materials (ICFM)**

© Thiagarajar College, Madurai

**First Edition: 2017**

**ISBN: 978-93-86537-91-1**

**Copy right**

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, mechanical, photocopying, recording or otherwise, without prior written permission of the author.

*Publisher*

**SHANLAX PUBLICATIONS**  
61, 66 T.P.K. Main Road  
Vasanthanagar  
MADURAI - 625003  
Tamil Nadu, INDIA

*Ph: 0452-4208765,  
Mobile: 7639303383  
email: publisher@shanlaxpublications.com  
web: www.shanlaxpublications.com*

Sl. No	Title	Page. No
80	Fabrication of Graphene Oxide-AuFe <sub>2</sub> O <sub>4</sub> Magnetic Nanocomposite for Efficient Removal of Lead from Water <b>S. Josephine Sarah &amp; R. Sayee Kannan</b>	59
81	A Facile Synthesis of Gold Nanoparticles Imprinted Polyvinyl Alcohol Nanocomposite for Sensing of Hg <sup>2+</sup> IONS <b>N. Vimalasundari, A. Baishnisha R. Sayee Kannan, J. Annaraja</b>	60
<b>ORGANIC SYNTHESIS</b>		
82	Synthesis and Characterization of 1, 5-Bis (2-Hydroxy-4-(P-Tolyldiazenyl) Phenyl) Penta-1, 4-Dien-3-One (HTDPPD) <b>V. Aruldeepa, M. Priyadharsani, Surabhi &amp; P. Tharmaraj</b>	61
83	Synthesis and Development of Substituted Pyrazoles as Anti-Biofilms <b>Biguvu Balachandra &amp; Sivakumar Shanmuga</b>	62
84	Synthesis and Characterization of Electronically Potential Nitro Compounds <b>Balaguru Balamurugan, Karuppasamy Jothilakshmi &amp; Murugaboopathy Karpagavalli</b>	63
85	Green Approach Synthesis of 7-Phenyl-6,7,8,9,10,11 - Hexahydro-5H-Benzo[C]Xanthenes <b>A. Chinnaraj &amp; G. Ravindran</b>	63
86	Studies of Thermal Degradation Aspects of Thermoset Blends <b>J. Dhanalakshmi &amp; C.T. Vijayakumar</b>	64
87	Novel Curcumin Derived Triazine Based Sensitizer for Solar Cell Characteristics <b>J. Kileyoba Vinnarasi, P. Tharmaraj &amp; C.D. Sheela</b>	64
88	Synthesis of Glycerol Carbonate from Glycerol Over Hydrotalcite Derived Mixed Oxide Catalysts <b>Marimuthu Manikandan &amp; Dr. P. Sangeetha</b>	65
89	Effect of Substituents on The <sup>1</sup> H - NMR Chemical Shifts of Substituted 5-Benzylidene barbituric Acids <b>P. Mohandass, K. Radhakrishnan, V. Suriyanarayanan &amp; S. Radhakrishnan</b>	65
90	One-Pot Four-Component Domino Syntheses of Indole-Thiazole-Pyridine Hybrids: A Potential Organic Drug Material <b>Balasubramanian Mariammal, Muthumani Muthu &amp; Raju Ranjith Kumar</b>	66
91	Corrosion Inhibiting Study of Malono Nitrile on Mild Steel in 1 M HCl <b>S. Muthumanickam, A. Elangovan &amp; K. Selvakumar</b>	67
92	A Facile and Highly Functional Substituted Synthesis of 5-Amino-4-Cyano-3-Phenyl-1H-Pyrazole-1-Carboxamide <b>P. Pandi Sudha &amp; G. Ravindran</b>	67
93	Synthesis and Characterization of (4z,7e)-4-(2-(4-Salicylaldehydediazenyl)-N-(4-(Dimethylamino)Benzylidene) Benzenamine <b>M. Priyadharsani V. Aruldeepa, J. Jonecelestina &amp; P. Tharmaraj</b>	68
94	Synthesis and Biological Evaluation of Novel N-Acyl Substituted Indole-Linked Benzimidazoles and Naphthoimidazoles <b>Rajan Abraham &amp; Prakash Periakaruppan</b>	68
95	Spectral and Powder XRD Studies of 2-(NAPHTHALEN-2-YLOXY)-1-Phenylethanone Derivatives <b>G. Rajmohan, G. Ravindran, A. Elangovan &amp; G. Arivazhagan</b>	69



## SYNTHESIS AND CHARACTERIZATION OF 1, 5-BIS (2-HYDROXY-4-(P-TOLYLDIAZENYL) PHENYL) PENTA-1, 4-DIEN-3-ONE (HTDPPD)

V.Aruldeepa,<sup>a\*</sup> M.Priyadharsani,<sup>a</sup> Surabhi <sup>b</sup> and P.Tharmaraj<sup>b</sup>

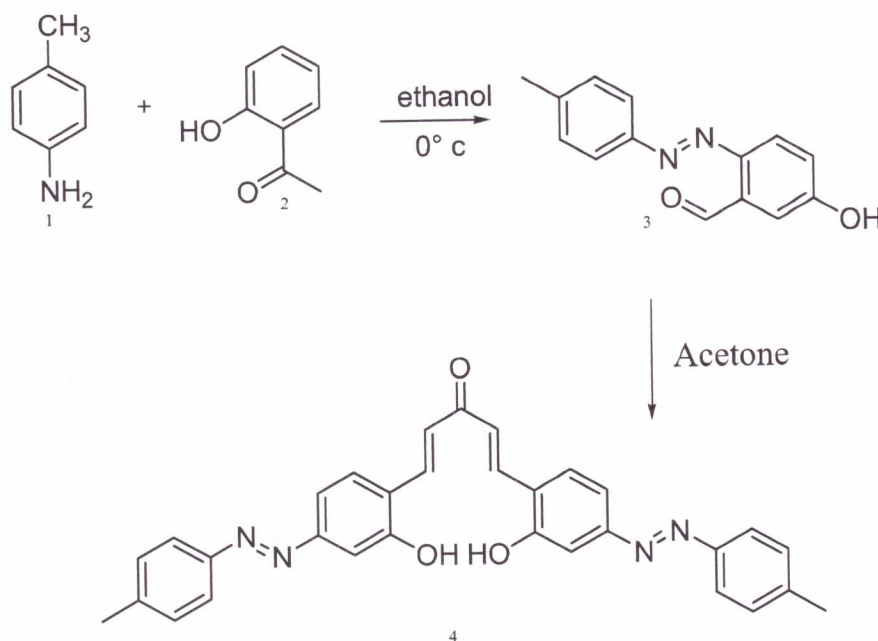
<sup>a</sup>Department of Chemistry, Fatima college, Madurai

<sup>b</sup>Department of Chemistry, Thiagarajar College, Madurai

The versatile ligational behaviour of azo compounds had evoked considerable interest in the past. Both the azo dyes and their metal complexes find applications in dye industry. The presence of metals makes the dyes more specific and selective. It is our aim to synthesise new azobenzene derivative and expected to exhibit variety of characteristics such as biological and catalytic properties.

The present work focuses on the synthesis of azobenzene derivative by reacting the mixture of 2-hydroxy-5-(p-tolyldiazenyl) benzaldehyde(2mmol) and acetone (1mmol) in alkaline solution at room temperature.

The synthesized compounds were characterized using various physical and chemical methods of analysis such as UV-Vis, FTIR, NMR, fluorescence, CV, TG and elemental analysis.



**Keywords:** Azobenzene, dyes, Hydroxy benzaldehyde