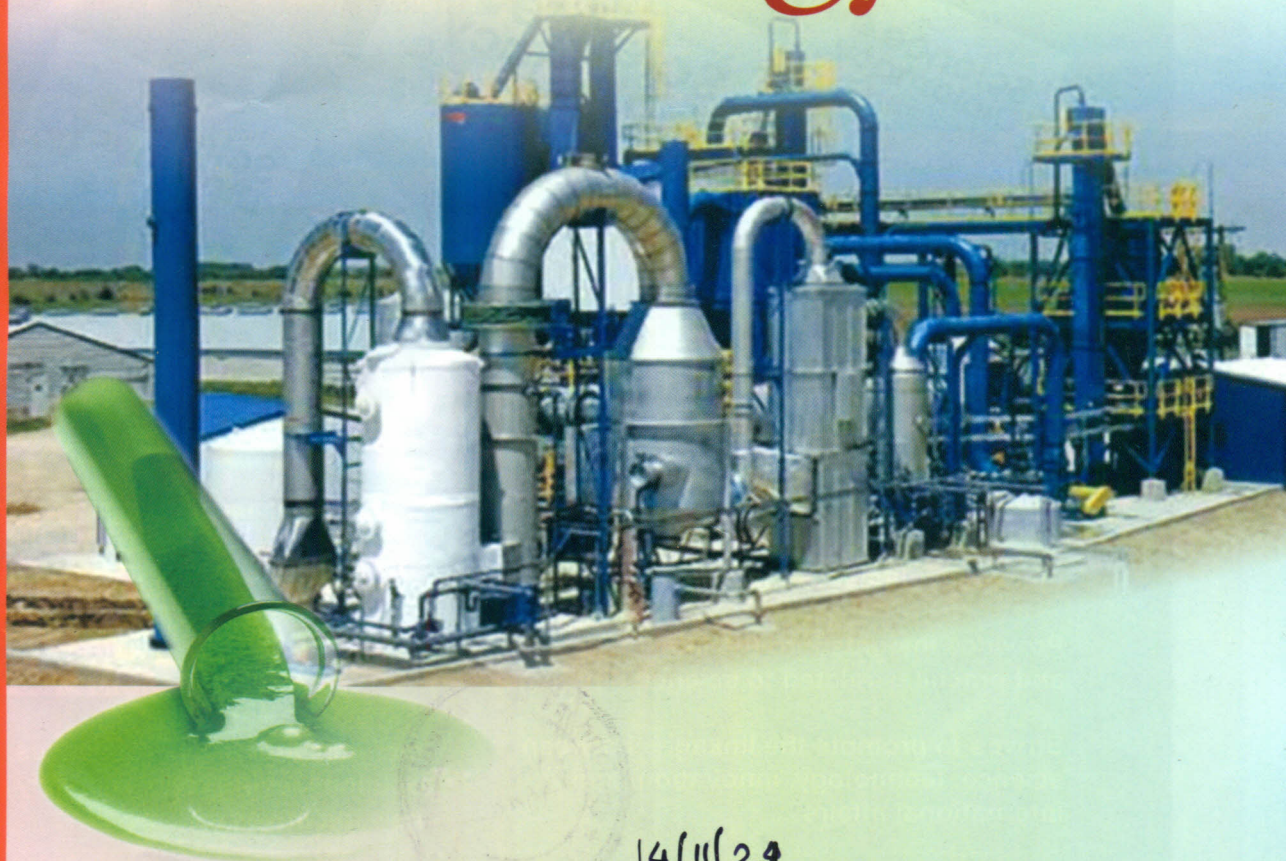


# Indian Journal of Chemical Technology



<https://niscpr.res.in>

Published by

CSIR-National Institute of Science Communication And  
Policy Research

New Delhi, INDIA

14/11/24

SB



# Indian Journal of Chemical Technology

www.niscpr.res.in; http:// nopr.niscpr.res.in

VOLUME 31

NUMBER 5

SEPTEMBER 2024

CODEN: ICHTEU

ISSN: 0971-457X (Print); 0975-0991 (Online)

## CONTENTS

### Papers

- Investigation of spectroscopic, water barrier and thermal characteristics of ameliorated chitosan membrane 673  
Shivam Kumar, Devyanshu Sachdev, Renu Sharma & Navneet Kaur Bhullar\*
- Development and evaluation of gelatin/polyacrylamide/carboxymethyl tamarind kernel gum hydrogel 681  
for delivery of ampicillin sodium  
Tanuja Kumari, Nitin, Priyanka Meena\* & Sudhir G. Warkar
- Spectrophotometric quantification of biotin in drug formulations utilizing Pd(II) promoted 691  
ligand substitution approach in micellar medium  
Abhishek Srivastava\*, Neetu Srivastava & Vinay Kumar Singh\*
- Efficacy improvement technique of air-filtration unit affected by biofouling using 702  
electroless Ni-Cu-P coating  
Niloy Ghosh\*, Jhumpa De & Amit Roy Chowdhury
- Amendment of chitosan biopolymer with graphite for augmented confiscation of reactive blue-19 and 710  
reactive orange-16 textile dyes  
P. M. Nandanwar\*, P. Doondani, D. Sarvanan & R. M. Jugade
- Optimization of conditions for fabrication of a ceramic component through gel-casting technique 722  
Rupashree Dash\*, Sukalyan Dash\* & Laxmidhar Besra
- Effects of PTFE-coated membrane on polyester needle-punched filter media for the control of industrial air 729  
pollution  
Swapnil, Satish Kumar & A K Choudhary\*
- Sequestration of Ni(II) ions from water bodies by using gamma-sterilized biowaste 738  
Apurva Bambal, Ravin Jugade\*, D. Sarvanan & Yogesh Pakade
- Multilayer polymeric composite membrane for gas separation 749  
N. Gobi\*, S. Karthick Kumar, C. Karthikeyan, S. Nandhini & D. Hazel
- Visible light driven g-C<sub>3</sub>N<sub>4</sub> photocatalytic pretreatment of rice straw for enhanced biogas production 762  
R. Tamilselvan & A. Immanuel Selwynraj\*
- Characterization and coagulation/flocculation treatment of coloured wastewater of institutional dyeing 770  
laboratory  
Anilkumar Yadav\* & Sanjeev R. Shukla

- Design of wastewater treatment plant for the removal of phenol using CHEMCAD® process simulator 783  
R W Gaikwad\*, Hemant Sadafale, Vikas S Hakke, Shirish H Sonawane & A R Warade
- Studies on Ni(II) removal from industrial wastewater by magnetic activated carbon nanocomposite 792  
Swaminathan Sribharathi, Gurusamy Kavitha\*, Ramasamy Sudha & Ganeshan Dinesh Kumar
- Synthesis of Ag-rGO nanocomposite for the catalytic reduction of p-nitrophenol 803  
Sweetlin Rajula Rubavathi D\*, Jayanthi J & Preethi M. S
- Comparison of yield for the extraction of *Solanum virginianum* bio-oil with different solvents 810  
V. Sabari, V. Apoorva Varshini, C. Jayakumar\* & M. Dharmendra Kumar

Authors for correspondence are indicated by (\*)

---