

EFFECTIVENESS OF ADSORBENTS FOR TREATMENT OF DIFFERENT INDUSTRIAL EFFLUENTS: A STATISTICAL APPROACH

R. Sreedhar Rao, G. Gyananath¹ and S. K. G. Krishnamacharyulu²

Department of Chemical Engineering, CBIT, Hyderabad, India

¹ *School of Life Sciences, SRTM University, Nanded, India*

² *School of Earth Sciences, SRTM University, Nanded, India*

E-mail: gyananath52@gmail.com, skgkchary@gmail.com

Abstract

Effective and low cost treatment methodologies are one of the major concerns of environmental scientists. The effluents from industries are to be effectively treated before their release into the environment. The current paper deals with adsorbents like fly ash, activated carbon, and saw dust that are tested for its effectiveness. The waste waters and effluents from different industries from the industrially developed city, Hyderabad, India are considered and examined for effectiveness of these adsorbents. The waste waters from industries like textile, tanning, chemical plants, electroplating and drug formulations are considered for the above treatment. The effluents of water treated in the respective treatment plants of the industries and the water treated through the treatment methodologies developed for this study were analyzed for various physicochemical constituents. The statistical normalized ratios are calculated and analyzed and compared to identify the performance of each treatment technology and its cost-effective application.

Keywords: Adsorbents, Industries, Effluents, Waste Waters.