Journal of Scientific & Industrial Research

VOLUME 75 NUMBER 7 JULY 2016

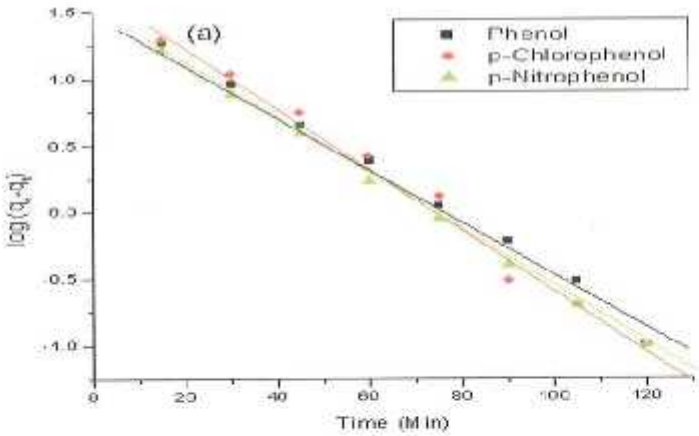
CONTENTS

Management & Information Technology

S & T and Industrial Research

Waste Utilization

Potential adsorption of phenols- major pollutants present in various industrial wastewaters onto adsorbent powdered activated mustard cake (PAMC) derived from (mustard cake MC) agriculture waste materials was evaluated. The PAMC had meso porous pore size distribution with surface area (27 $m^2 g^{-1}$) The adsorption characteristics of the PAMC primarily attributed to the presence of silica or mixed oxides of Ca, Mg, Al and Fe not by the carbon. The Langmuir, Freundlich, Redlich-Peterson and Temkin models were applied to evaluate the adsorption parameters. The adsorption decreased in the order of p-nitrophenol > p-chlorophenol > phenol. Adsorption kinetics was examined using different kinetics model (Lagergren first order, pseudo second order and intra particle diffusion model).



Author-Reader Platform