



ABSTRACTS

International Conference & Exhibition on Pure
and Applied Chemistry 2002

May 29-31, 2002, Bangkok, Thailand



Chemical Society of Thailand



Department of Chemistry
Faculty of Science
Chulalongkorn University

**SEPARATION OF COPPER(II) IONS FROM WASTE WATER BY
2-(2'-THIAZOLYLAZO)-*p*-CRESOL RESIN**

Warangkana Rerkpalin^{*}, Chorchat Soontornpalin and Apisit Songsasen

Department of Chemistry, Faculty of Science, Kasetsart University,
Bangkok 10900, Thailand

A chelating resin (P-TAC) was prepared from the adsorption of 2-(2'-thiazolylazo)-*p*-cresol (TAC) in a mixture of 1:1 triethylamine and dimethylformamide on polystyrene divinylbenzene. This chelating resin (P-TAC) has ability to adsorb copper(II) ions. The pH of the solution and shaking time for sorption of copper (II) ions by P-TAC was optimized. The maximum capacity of chelating resin (P-TAC) for copper(II) ions obtained from batch experiment at pH 9.0 after shaking for 12 hours was 0.6427 mmol/g and from column experiment was 0.0498 mmol/g. The suitable solvents for the desorption of copper(II) ions from P-TAC was studied. It was found that the suitable eluent was 1.0 molar hydrochloric acid, which had 12.64 % desorption.