

Thesis Title Construction of Flow Injection Analysis
 System for Cadmium

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M.Sc. Chemistry

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Abstract

A flow injection analysis (FIA) system was constructed for cadmium determination using cheap and easily available materials in Thailand. The optimum working conditions for the FIA system were studied, such as concentrations of reagents used, alkalinity of medium solution, flow-rate (or position of reservoir), mixing coil length and wavelength of absorption using complexation reaction of cadmium with 2-(2-benzothiazolylazo)-4,5-dimethylphenol (BTDMP). Using the optimum conditions calibration curve was obtained for a linear range of 0-10 ppm Cd. Interferences of some divalent ions eg. Zn, Cu, Co, Ni and Hg were also investigated.