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๑๕๕๙๙๔

DEVELOPMENT OF AN ANALYTICAL TECHNIQUE FOR THE ASSAY  
OF TRACE ELEMENTS IN FRESH WATER BY  
ATOMIC ABSORPTION

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A Thesis Submitted in Partial Fulfilment of the Requirements  
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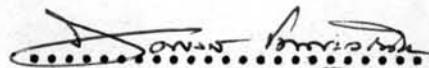
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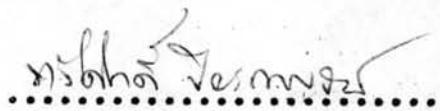
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### บทคัดย่อ

ให้คึกษาวิธีวิเคราะห์ปริมาณ เงิน ทองแดง ปรอท ตะกั่ว แคดเมียม และ โโคบอด์ ในน้ำด้วยวิธีอะกอมมิกแอบซอร์ปชัน แยกจากห้องหางานน้ำโดยใช้ ถูกดูดซับ (adsorb) บน คอลั่ม (column) ของโวลตาเลฟ (voltalef) ชั้น ฉนวนด้วยไดทิโซน (dithizone) เงิน ทองแดง และ ปรอท จะถูกดูดซับเมื่อ สารละลายนี้ pH  $1 \pm 0.5$  ตะกั่ว แคดเมียม และ โโคบอด์ จะถูกดูดซับเมื่อ สารละลายนี้ pH  $5 \pm 0.5$  ชาตุห้องจะถูกไล่ออกจากคอลั่มด้วยสารสม CCl<sub>4</sub>: acetone ในอัตราส่วน 1 : 1 หลังจากทำลายสารละลายนินทรีย์แล้วด้วยปริมาณ ชาตุห้องวิธีอะกอมมิกแอบซอร์ปชัน ให้ใช้วิธีดังกล่าววิเคราะห์ปริมาณชาตุหองใน ตัวอย่างน้ำที่เก็บจากแม่น้ำเจ้าพระยาตอนล่างระหว่างเดือน มิถุนายน ถึงเดือน สิงหาคม พ.ศ. 2517 รวมทั้งสิ้น 24 ตัวอย่าง

Thesis Title      Development of an Analytical Technique for  
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                        by Atomic Absorption

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#### ABSTRACT

The quantitative analysis of Ag, Cu, Hg, Pb, Cd and Co by the method of atomic absorption was studied. The elements were concentrated by chelation on a chromatographic column containing voltalef coated with dithizone. Ag, Cu and Hg were adsorbed from an aqueous solution at pH  $1 \pm 0.5$  whereas Pb, Cd and Co were adsorbed at pH  $5 \pm 0.5$ . A mixture of  $\text{CCl}_4$  : acetone in a ratio 1 : 1 was used as eluting agent. After the organic solvent was destroyed, the concentration was measured by the method of atomic absorption. The results of the concentration of the six elements in 24 water samples collected from the lower part of the Chao Phya River during June - August, 1974 were reported.

TO  
MY MOTHER

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