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Development of a Simple, Inexpensive, and Rapid Screening Method for Detection of Cocaine Use

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Poster Presentation 31

**DEVELOPMENT OF A SIMPLE, INEXPENSIVE, AND RAPID
SCREENING METHOD FOR DETECTION OF COCAINE USE**

Jennifer A. Duke and David N. Bailey*, Department of Chemistry, IWU

A quick, inexpensive, and accurate method of analyzing urine to detect drug use is needed for the handling of large numbers of samples commonly encountered in screening applications. One method currently under investigation for the detection of cocaine derivatives in human urine is ion-ion pairing. A version of this technique, utilizing tetrakis (thiocyanato) cobalt II as the pairing agent, has been applied to facilitate extraction of the cocaine metabolite benzoylecgonine (BE) into an organic solvent. The efficiency of this procedure is dependent upon pH and ionic strength of the solution. The most favorable conditions for the extraction of BE into dichloromethane have been determined.