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# **INDUCTIVELY COUPLED PLASMA MASS SPECTROSCOPY USED FOR THE QUANTIFICATION AND EVALUATION OF POTENTIAL DRUG BIOACTIVATION**

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Unanticipated toxicity is commonly associated with the formation of chemically reactive metabolites. The application of effective technologies for screening a significant number of drug candidates for the potential to form reactive intermediates at an early stage in drug discovery would improve the chances that a drug candidate making it into drug development and therefore, on to the market. In this respect, the use of nucleophilic trapping agents such as glutathione and  $\beta$ -mercaptoethanol, which contain the sulphur element, then can be used in a generic, sensitive and quantitative analytical assay using an element specific detector such as the ICP-MS. Coupling a mass spectrometer to the system can then add to the system making structural characterisation possible simultaneously. The assay was used for the quantitation of reactive intermediates generated from unlabeled drug in human liver microsomal incubations.