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Interference elimination studies during the determination of trace elements in cow liver using differential pulse polarography

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Abstract: The liver is known to accumulate many trace elements; thus it is very important to determine their level in a sensitive way. The objective of this study was to develop a simple method for the simultaneous determination of trace elements in cow liver in which the elimination of interference can be accomplished. It was observed that Cd, Pb, Zn, and Cu ions could not be determined correctly in the presence of Se(IV), because of interference of Se. It was shown that this interference could be eliminated by using pH 8.5 NaAc electrolyte. In this medium first Cd and Zn were determined: then, after addition of EDTA, Pb and Cu ions were determined by standard addition. Since Ti (IV), Mo(VI), Cr(III), and Fe(III) had no