



**Short Communication**

**Column Preconcentration and Spectrophotometric Trace Determination of Maneb in Food-Stuffs and Commercial Samples**

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**ABSTRACT**

*A new rapid, sensitive and selective method has been developed for the determination of maneb (manganese ethylene bis-dithiocarbamate) present in a large volume of aqueous solution after preconcentration on a column using chitin-4-(2'-pyridylazo)resorcinol (PAR) as adsorbent. Maneb is quantitatively retained on the column as Mn-PAR complex in the pH range 8.0-12.0 and at a flow rate of 1-5 mL min<sup>-1</sup>. Complex adsorbed on chitin was eluted from the column with 10 mL of dimethylformamide (DMF) and absorbance of the eluate was measured at 500 nm against a reagent blank. Beer's law is obeyed over the concentration range 3.0-41.0 µg of Maneb in 25 mL of the final DMF solution. The reproducibility of the method was checked by ten replicate analysis of 30.0 µg of Maneb in 25 mL of final solution which gave a mean absorbance of 0.40 with a relative standard deviation 1.38%. The interference of various ions has been studied. The method has been employed for the determination of Maneb in crops and commercial samples.*

**Keywords:** Maneb, spectrophotometric, PAR.

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