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A SIMPLE PRE-COLUMN DERIVATIZATION METHOD FOR THE DETERMINATION OF MANCOZEB TECHNICAL (FUNGICIDE) BY REVERSE PHASE HPLC-UV

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A simple and fast pre-column derivatization High Performance Liquid Chromatographic method for the analysis of Mancozeb technical was developed and validated in the present study. The mobile phase consist a mixture of Acetonitrile and 0.1% (v/v) formic acid in the proportion 60:40. This was found to give sharp peak of S-ethyl derivative of Mancozeb (S-ethyl ethylenebisdithiocarbamate) at a retention time of 9.12 minutes. HPLC analysis of Mancozeb was carried out at a wave length of 272 nm with a flow rate of 1.0 mL / minute. The linear regression analysis data for the calibration curve showed a good linear relationship with a regression coefficient 0.999 in the concentration range of 8.2 mg/L to 32.3 mg/L for derivative of Mancozeb technical. The method was validated for specificity, linearity, precision and accuracy.

Biography

Narendra Hanumanta Petha is pursuing his doctoral work at Jaipur National University. He has more than 10 years of analytical research experience in pharmaceuticals, agrochemicals and specialty chemicals and currently working in analytical development laboratory of Indofil Industries Limited.

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