

## Spectrophotometric determination of metoclopramide medicine in bulk form and in pharmaceuticals using orcinol as reagent

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**Abstract.** A modern, accurate, simple and sensitive spectrophotometric procedure is tested for the appreciation of metoclopramide medicine as perspicuous form, as well as in various kinds of pharmaceutical dosages. The procedure depends on the interaction of metoclopramide (MCP) medicine and orcinol reagent by utilizing azo coupling reaction. The orcinol in NaOH solution middle to give a latterly ligand which reacts with copper (II) to output the complex with strong yellow color at 50°C. The resulting complex is water soluble, stable and can be determined spectrophotometrically at wavelength 459 nm. The calibration curve absorbance *vs.* concentration was established in the concentration range 0.6-12 ppm, and the curve followed the Beer's law in this range. The procedure precision is given by the average recovery of 99.91% sequentially, as well as by the average relative standard deviation 0.70%, related to the amount of drug. The sensitivity is established at molar absorptivity  $1.9044 \times 10^4 \text{ l}\cdot\text{cm}^{-1}\cdot\text{mol}^{-1}$ . The Sandell sensitivity is tested as  $0.002 \mu\text{g}/\text{cm}^2$ . The analytical results for the tested procedure agree with the official procedure. The interferences from medicine additives were tested. The established procedure is successfully examined on the appreciation of MCP in diverse kinds of pharmaceuticals.

**Keywords:** metoclopramide medicine; orcinol; diazotization-coupling reaction; copper (II) complex.

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