

Turkish Journal of Chemistry

Turkish Journal

Spectrophotometric Determination of Selenium (IV) Using Methdilazine Hydrochloride

of

Mahaveer B. MELWANKI, Jaldappa SEETHARAMAPPA
Department of Studies in Chemistry, Karnatak University,
Dharwad-580 003, INDIA

Chemistry

 [Keywords](#)
 [Authors](#)

Abstract: Methdilazine hydrochloride is proposed as a selective and sensitive reagent for the spectrophotometric determination of selenium (IV). The reagent forms a red radical cation by selenium (IV) in hydrochloric acid medium and exhibits an absorption maximum at 513 nm. Beer's law is valid over the concentration range 0.1-2.3 mg¹⁻¹ of selenium (IV). Sandell's sensitivity of the reaction is found to be 3.57 ng cm⁻² and the molar extinction coefficient is 9.32 x 10⁴ l mol⁻¹ cm⁻¹ at 513 nm. The effects of acidity, reagent concentration, temperature and diverse ions upon the absorbance of the red species are critically assessed. The proposed method has been applied for the determination of selenium in alloys.



Turk. J. Chem., **24**, (2000), 287-290.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Chem., vol.24, iss.3.](#)

chem@tubitak.gov.tr

[Scientific Journals Home
Page](#)