

OIL SHALE RESORCINOLS – EFFECTIVE REAGENTS FOR SPECTROPHOTOMETRIC DETERMINATION OF NITRITE

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A new test method for nitrite as nitrosoalkylresorcinolate is proposed. The method is based on the especially easy nitrosation of alkylresorcinols (R) with nitrous acid formed from nitrite in acidic solutions, and on the subsequent formation of a coloured complex with a transition metal cation (Me). The main oil shale originated phenols, 5-methylresorcinol and 2,5-dimethylresorcinol, are applied as R and the cobalt, nickel, copper and iron(II) cations as Me. Effect of nitrite, R, and Me concentration, and pH on the absorption is described. Under the optimum conditions found (0.01 mol dm⁻³ of 5-methylresorcinol and CoSO₄, pH 4), Beer's law is obeyed in the concentration region of nitrite 0.1–10 mg dm⁻³.