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Thermodynamic and spectroscopic studies on complexes formation properties of Quercetin and Curcumin with Ni⁺² and pb⁺² and determination of stability constant by spectrophotometric method

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Abstract:Quercetin and curcumin are are one of wide plenty dietary flavonoids. It has been scanned in the sharing of Pb(II),Ni(II) in Ethanol/H₂O (40:60v/v)for Quercetin and Ethanol /H₂O (60:40v/v)forcurcumin. The spectroscopic studies (UV-vis) were beneficial to consider the pertinent interaction of Quercetin and curcumin with Pb(II),Ni(II)ions .The chelation sites and dependence of the complex structure from the ligand /metal ratio. 1:1 (L:M)complex was indicated by Job's method of continuous variation.It was used to achieve the stoichiometric assembly of the complex.

Keywords: Thermodynamic, Quercetin and Curcumin, spectrophotometric.

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