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Determination of Quercetin by HPTLC Method in Purple Dendrobium Flowers Extract

Aparna Bhradwaj

Department of Chemistry, Mithibai College, Vile Parle (W), Mumbai, **INDIA**

Email: dr.aparna73@rediffmail.com

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ABSTRACT

Dendrobium species of plants are highly prized medicinal medicine. It includes a variety of bioactive like SG-168, dendroxine and anti –cancer (Phenanthraquinone). Phytochemical analysis of the flower extract showed the presence of alkaloids, carbohydrates, proteins, phytosterol, phenol, flavonoids etc. In the present study, an attempt was made to quantify the flavonoid quercetin in the Purple flower extract of Dendrobium. TLC was done to confirm the presence of quercetin and HPTLC method has been developed for quantification of quercetin in the methanol flower extract. TLC silica gel 60 F 254 plate was used as stationary phase and the solvent system toluene: chloroform: ethyl alcohol (4:4:1) as the mobile phase. Quantitative analysis was carried out in the absorbance range 200 to 400 nm. A good linear relationship 0.99926 was obtained between the concentration ranges of 100 – 300 ng spot^{-1}.

Keywords: Dendrobium, quercetin, TLC, HPTLC.