

ABSTRACT

**PHYSICAL CHARACTERIZATION OF QUERCETIN-HPMC 2910 3
CPS SOLID DISPERSIONS IN 1:1, 1:2 AND 1:3 RATIOS**

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Quercetin is a member of flavonoids family which is able to bring various pharmacological activities and has already entered clinical trial emerging as antioxidant. However, quercetin is slightly soluble in water, which may be responsible for its limited absorption upon oral administration. The present study was related to preparation and evaluation of solid dispersions of quercetin to improve its aqueous solubility and dissolution rate. Solid dispersions of quercetin in different ratios with HPMC 2910 3 cps were prepared by solvent method. Physical characterization by PXRD, DTA, FTIR and SEM studies, in comparison with corresponding physical mixtures revealed the changes in solid state during the formation of dispersion.

Keywords: *Solid dispersion, quercetin, HPMC, physical characterization.*