



Research Article

**DEVELOPMENT, EVALUATION AND CHARACTERIZATION OF
SURFACE SOLID DISPERSION FOR SOLUBILITY AND DISSOLUTION
ENHANCEMENT OF DICLOFENAC**

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ABSTRACT

The main objective of the study was to enhance the dissolution of diclofenac, a poorly water soluble drug by surface solid dispersion technique using different carriers and to study the effect of each carrier on the in vitro dissolution profile. The formulations were optimized in the preliminary trials by using various ratios of different carriers like croscarmellose sodium (CCN), crospovidone (CP) and sodium starch glycolate (SSG). Resultant formulations were evaluated using FTIR, X-ray diffraction, DSC, SEM and in vitro dissolution.

Keywords: *Diclofenac, Surface solid dispersion, Solvent evaporation, In vitro dissolution.*