

Monitoring of Polymorph transformation of clopidogrel hydrogen sulphate(CHS)using Raman spectroscopy

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Crystallization of form I clopidogrel hydrogen sulfate was monitored by in situ measurement using Raman spectroscopy. Drowning out was used in carrying out the crystallization of CHS. The metastable form of clopidogrel hydrogen sulphate usually undergo solution mediated transformation. The polymorphs were identified by Raman spectroscopy and the final product by x-ray powder diffraction analysis. From the various in situ measurements, the trends of forms I and II were analyzed in the quest for an optimum condition for the production of metastable form I. The influence of solvent to antisolvent ratio and temperature was probed into by raman spectroscopy. As a result, transformation of the polymorph was sucessfully monitored by Raman spectroscopy in line.