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Study of rheology and polymer adsorption onto drug nanoparticles in pharmaceutical suspensions produced by nano milling

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KEYWORDS: Poorly soluble drugs, rheology, nanoparticles, nano milling, viscosity, light scattering

ABSTRACT

Nanosuspensions provide a drug delivery approach to cope with erratic absorption of poorly water-soluble compounds. Despite of extensive research over the last years, there are still open pharmaceutical challenges so it is often unclear how quality attributes such as viscosity and physical stability are generated, which requires a more thorough study of the colloidal structures and interactions in nanosuspensions. In this study, diffusing wave spectroscopy and microfluidics-based rheology were used for the first time to assess pharmaceutical nanosuspensions that were obtained by wet milling. Further sample characterization following

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