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Impact of dispersants on dissolution of itraconazole from drugloaded, surfactant-free, spray-dried nanocomposites

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ABSTRACT

Dissolution of poorly soluble drugs can be improved by wet-milling their suspensions and drying the suspensions to form nanocomposites. Different classes of dispersants and their concentration can affect both nanoparticle aggregation in the suspensions and drug dissolution from the nanocomposites. In this study, we examine the impact of various classes of dispersants on nanoparticle aggregation—dissolution of itraconazole (ITZ) from spray-dried wet-milled ITZ nanosuspensions. 2.5% hydroxypropyl cellulose (HPC), 0.2% sodium dodecyl sulfate (SDS), and

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