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Influence of Process Parameters on Nimesulide-Loaded Poly(D,L-Lactide-Co-Glycolide) Microcapsules

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SUMMARY. **Nimesulide was formulated as sustained release microcapsules using biodegradable polymer Poly(D,L-lactide-co-glycolide) (PLGA) as the release material by non-solvent addition coacervation method. The prepared microcapsules were evaluated for physico-chemical properties i.e. size analysis, morphology, micromeritics, drug content, encapsulation efficiency and drug release characteristics. All microcapsules obtained were discrete, large, free flowing and spherical in shape. The maximum encapsulation efficiency of nimesulide was up to 81.02 ± 2.10 %. Nimesulide release from microcapsules followed Higuchi model. Slow release of nimesulide from PLGA microcapsules over 12 h was observed.**

KEY WORDS: Biodegradable microspheres, Microencapsulation, Nimesulide, PLGA.

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