

## Release kinetics of olibanum resin coated microcapsules of pioglitazone

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Olibanum resin was evaluated as microencapsulating agent and to prepare resin-coated microcapsules. Resin-coated microcapsules of pioglitazone were prepared by an industrially Feasible emulsification-solvent evaporation method and the microcapsules were investigated. The resin-coated microcapsules are spherical, discrete, free-flowing and multinucleate monolithic type. Microencapsulation efficiency was in the range 908-105%. Pioglitazone release from the resin-coated microcapsules was slow over 24 h and depended on core: coat ratio, wall thickness and size of the microcapsules. Drug release was diffusion controlled and followed first order kinetics. Good linear relationships were observed between wall thickness of the microcapsules and release rate. Resin-coated microcapsules of pioglitazone exhibited good controlled release characteristics.

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