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TITLE

Production and Stability Evaluation of Modified-Release Microparticles for the Delivery of Drug Combinations

Muhammad Naeem Aamir

UVAS, Pakistan

Production and evaluation of novel formulations of tizanidine and tramadol microparticles was the chief purpose of this project. Microparticles of both drugs were prepared separately via temperature change method. To extend the release of formulations, ethyl cellulose was employed. Higuchi, zero-order, first-order, and Korsmeyer-Peppas kinetic models were applied to appraise the mechanism and mode of drugs release. Higuchi model was found to be best for all release profiles. Stability of microparticles at 40°C/75%RH over 3-month duration was determined by Fourier transform infrared (FTIR), X-ray diffractometry (XRD), and drugs assay. Microparticles were compatible and stable as no significant differences were observed when subjected to drug assay, FTIR, and XRD during accelerated stability studies.

Biography

I have completed Ph.D. at the age of 30 years from Department of Pharmacy, the Islamia University of Bahawalpur, Pakistan. I am serving as Assistant Professor of Pharmaceutics in Institute of Pharmaceutical Sciences. I have 20 research papers in well reputed journal across the globe. Currently I am working on modified drug delivery systems.