

Iran International Zeolite Conference (IIZC'08) April 29 - May1, 2008, Tehran -Iran



IIZC-08-342

A Zeolite-based formaulation of leukeran tablets: synthesis, characterization and drug release evaluation

F. Hadizadeh^{a*}, H. Kazemian^b, Z. E. Nazari^c, M. Seifi^a, F. Sadeghi^c

^aBiotechnology and pharmaceutical research center, Avicenna research institute, Mashhad University of Medical sciences, Mashhad, Iran,

^b R&D Lab. Of SPAG Co., Technology incubator, Sci & Technol. Park of Tehran University, Tehran, Iran, and NSTRI, P.O.B.: 11365-3486., Tehran – Iran

^c Pharmacy School, Mashhad University of Medical sciences, Mashhad, Iran Corresponding author: hadizadehf@mums.ac.ir

Abstract

Zeolites are hydrated natural and synthetic microsporous crystals. They have been used as drug delivery systems. Our purpose in this study was to formulate a zeolite base leukeran tablet, as well as evaluation of drug release properties of the new tablet. After preparation of dried zeolite leukeran powder using solvent evaporation technique and addition of the optimum combination suitable recipients, the powder was pressed with 20N pressure using a single punch compressing machine. The routine analytical methods on the experimental zeolite base tablets were performed. Comparing the results of the dissolution studies of these tablets with that of commercially available leukeran tablets (Wellcom ,GB) showed that the zeolite base tablets have sustained release properties.