

4036998 PYPT/M: MAJOR : PHARMACEUTICS; M.Sc. in Pharm  
( PHARMACEUTICS )

KEYWORDS : PROCESS VARIABLES / GRANULATION / OPTIMIZATION

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PROCESS AND COMPARATIVE EVALUATION OF HYDROCHLORO-  
THIAZIDE GRANULES AND TABLETS PRODUCED BY DIFFERENT  
GRANULATORS. THESIS ADVISORS : AMPOL MITREVEJ, Ph.D.,  
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p. ISBN 974-662-518-7

Effects of process variables on hydrochlorothiazide granules and tablets were investigated in this study. Three granulators, i.e., sigma blade mixer, planetary mixer, and fluidized-bed granulator were used. A 140 ml portion of 10 % w/w aqueous solution of povidone K-30 was added to powder bed as binding agent. One of the process variables was added amount of water to produce acceptable granulations. The other process variables were mixing time, agitation intensity, product temperature and spray rate depending on types of granulators. Three-dimensional plots of process variables against granule and tablet properties were generated to demonstrate their relationship. Amount of water added was found to be the major factor which regulated properties of granules produced in sigma blade mixer and planetary mixer and their corresponding tablets. Both spray rate and product temperature exerted predominant effects on the granules and tablets. Tablet weight variation, friability, and dissolution were employed as criteria to determine the optimum conditions for each granulator. Optimization technique was found to be a useful tool to define each individual process variable suited for the granulator used.