



Small Scale Film Coating Of Tablets, Pellets And Granules

Technology Reference

CG11

Contact

Daniel F. Marselle
Director, Pharmacy
Intellectual Property
312-996-6187
marselle@uic.edu

Key Word(s)

- film coating
- small-scale
- formulation development

Stage of Development

- U.S. Patent #5,158,804 issued October 27, 1992 and U.S. Patent #4,919,973 issued April 24, 1990

Description

A device for uniform application of one or more layers of coating materials to tablets, pellets or granules in quantities from 0.5 to 10g is described. (Individual tablets weighing as little as 200 mg were successfully coated, as were small, 50 mg compacted pellets.) The device effectively fluidizes solid materials being coated by controlled vibration of a mesh through which drying air is passed while spraying the solids with a solution of the coating from an airbrush. The coating is uniform and intact. Release of the incorporated drug, which is delayed, is a function of the coating load.

Field of Application

This device is particularly useful when dealing with small quantities of expensive drugs during the initial stages of formulation development.

Advantages

1. The described process is rapid, quantitative, and economical, and may be used with organic or aqueous based systems.
2. The invention is ideal for industrial initial product development.
3. The invention allows for the gravimetric measurement of the amount of coating applied.
4. The invention is ideally suited for teaching processes at the undergraduate level.

References

1. "Small-Scale Film Coating of Tablets, Pellets, and Granules", Alkan, M. H., M. J. Groves, C. L. Roland, C. D. Teng, E. M. Dwyer and M. C. Patel, Pharm. Technology (June 1988).