

Article

The Use of a Three-Fluid Atomising Nozzle in the Production of Spray-Dried Theophylline/Salbutamol Sulphate Powders Intended for Pulmonary Delivery

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Supplementary materials

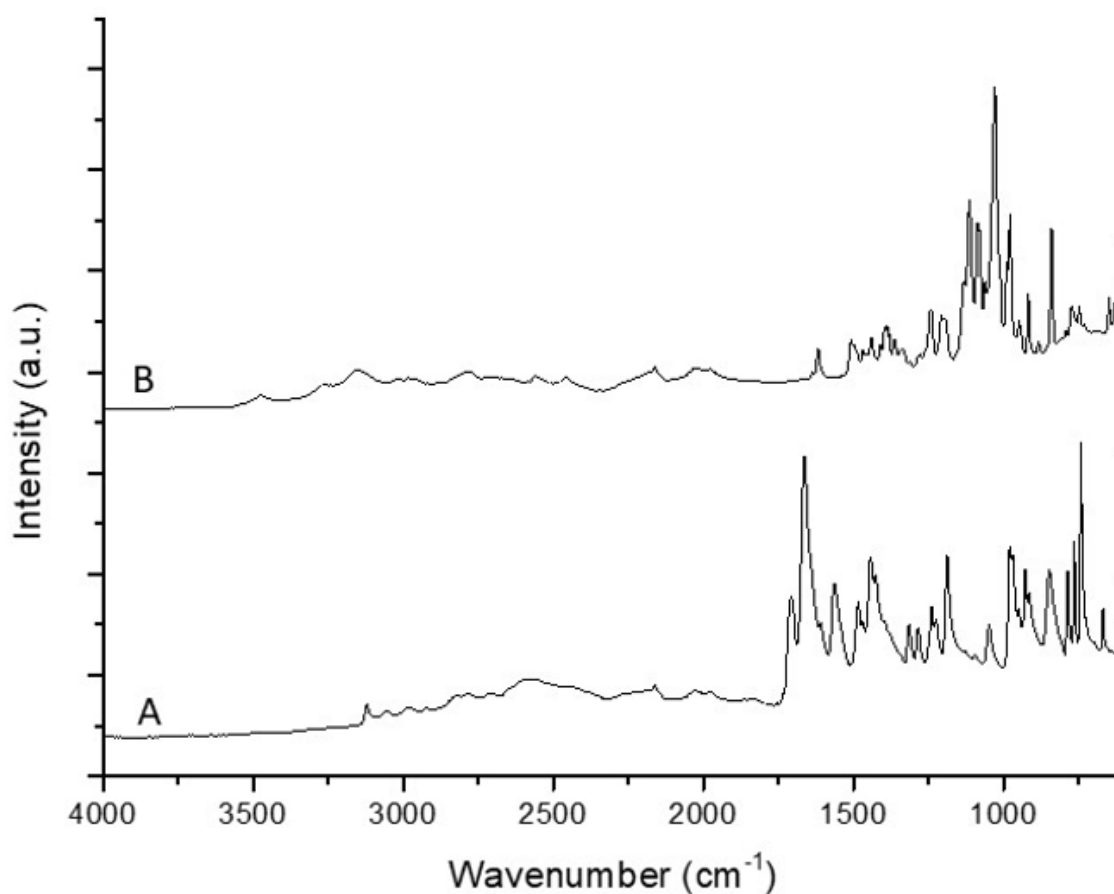


Figure S1. Infrared spectra of (A) theophylline and (B) salbutamol sulphate raw materials.

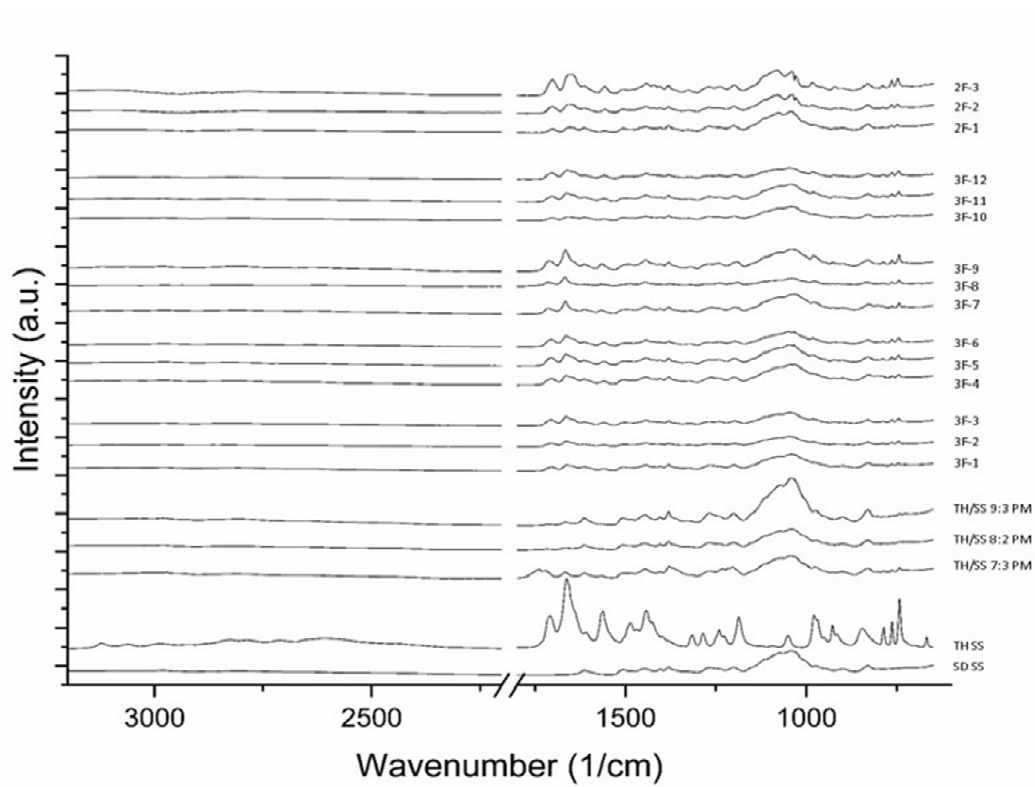


Figure S2. Infrared spectra of spray-dried formulations.

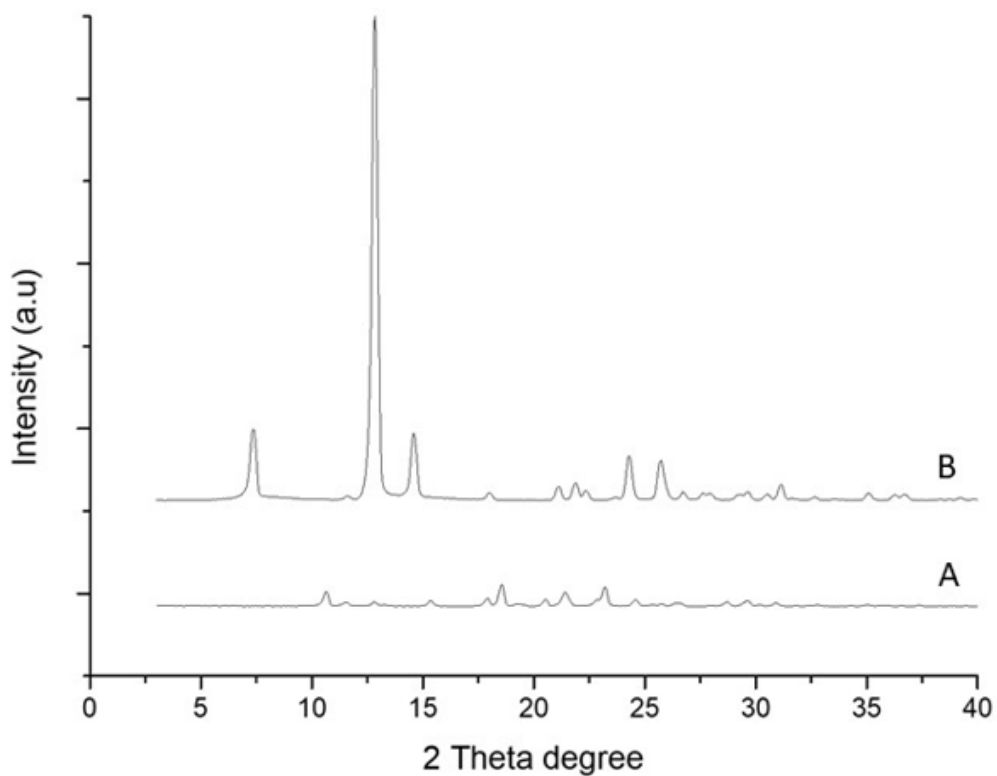
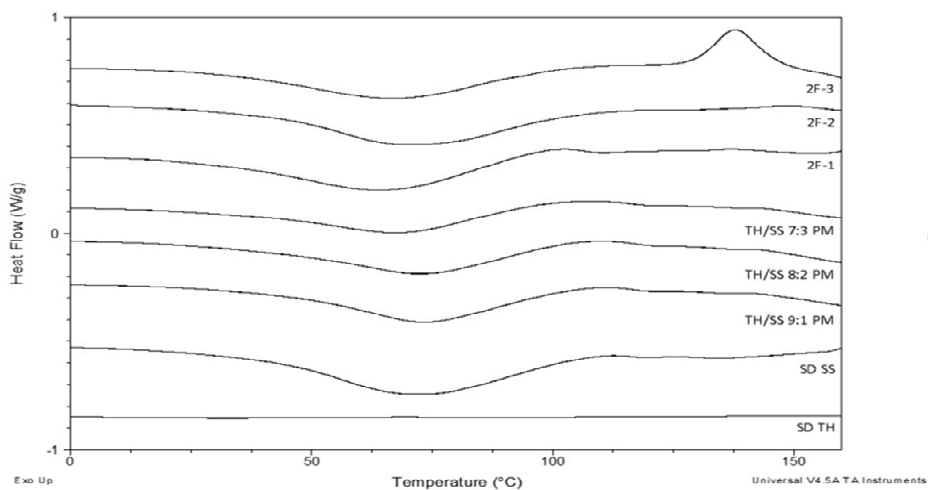
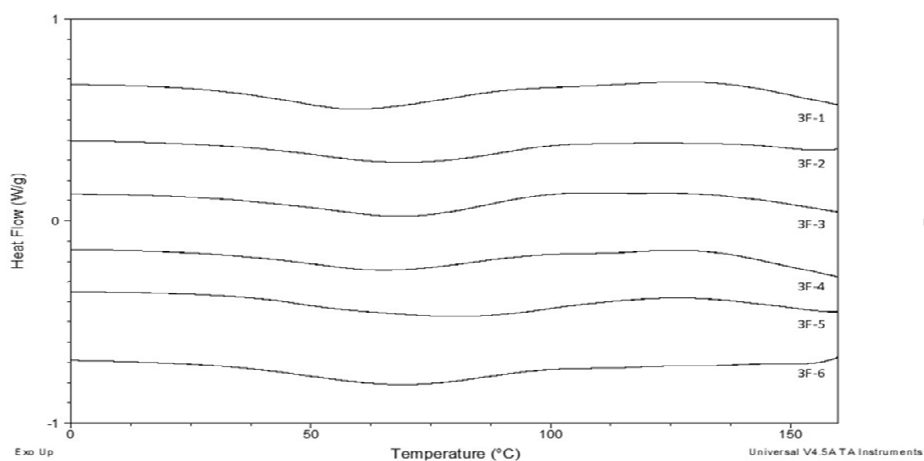


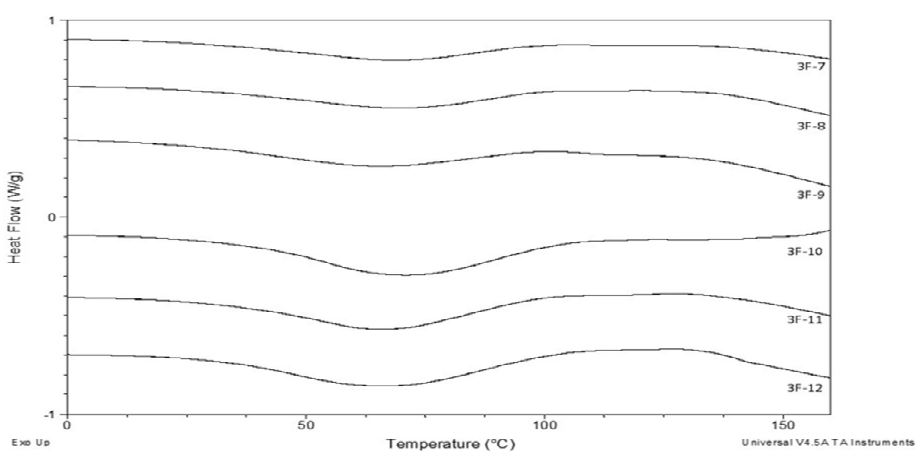
Figure S3. PXRD patterns of (A) salbutamol sulphate and (B) theophylline raw materials.



(A)



(B)



(C)

Figure S4. Representative DSC thermograms of powders, including (A) spray-dried theophylline; spray-dried salbutamol sulphate, spray-dried SS and TH physical mixture, samples 2F_1-3; (B) samples 3F_1-6; (C) samples 3F_7-12.

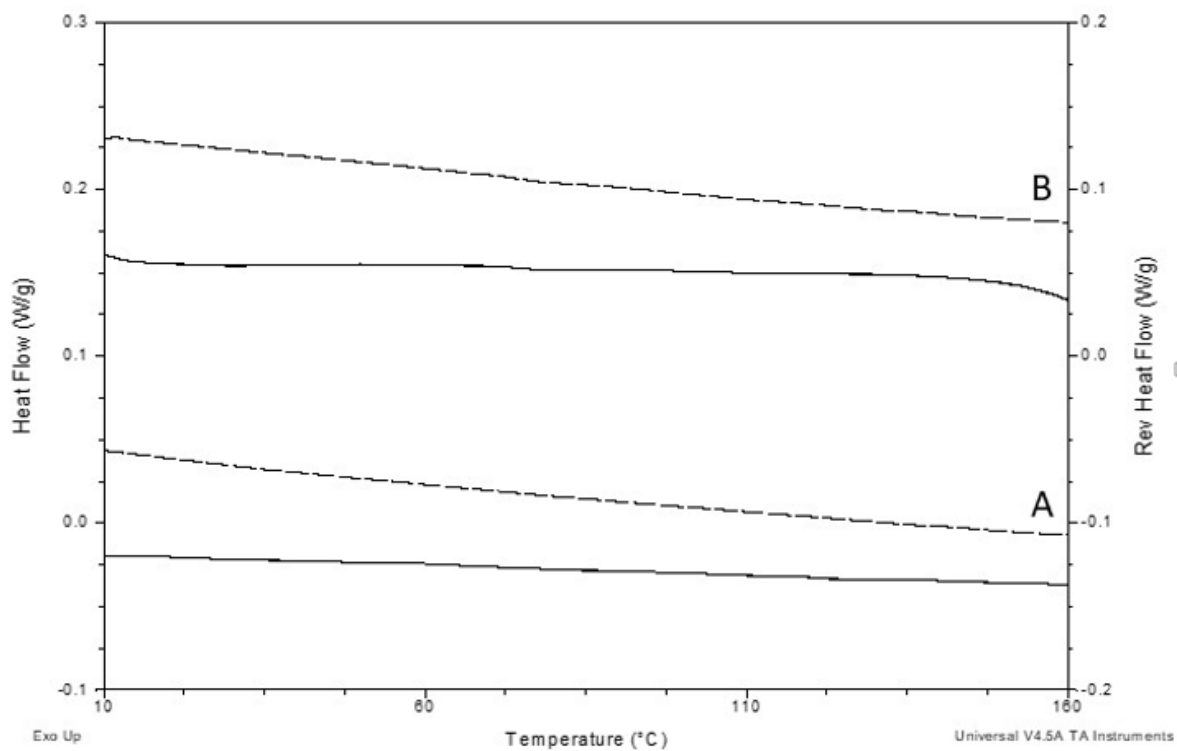


Figure S5. Reversible (dashed lines) and total heat flow (solid lines) MDSC thermograms of (A) spray-dried theophylline and (B) spray-dried salbutamol sulphate.