

Probing Phase Transformations in Thiamine Hydrochloride Tablets

Raj Suryanarayanan (PI) & Paroma Chakravarty

Department of Pharmaceutics, University of Minnesota

NNIN Facility utilized: Characterization Facility

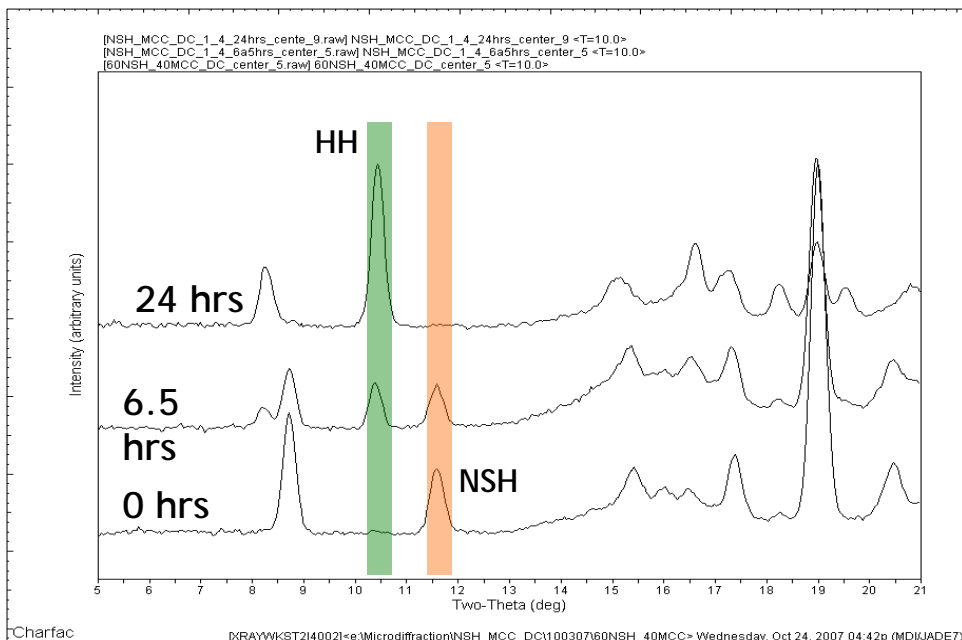
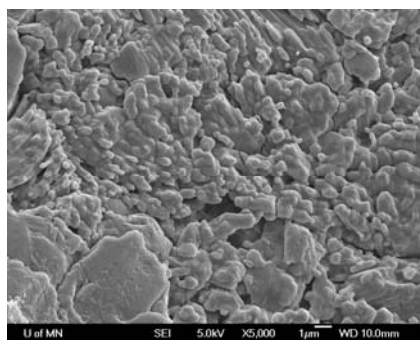
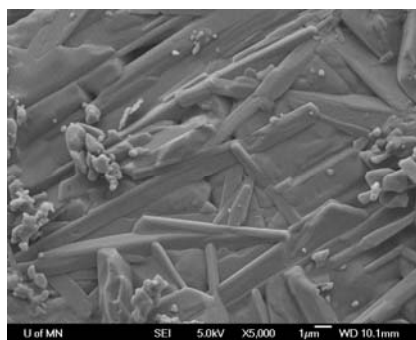


Figure 1

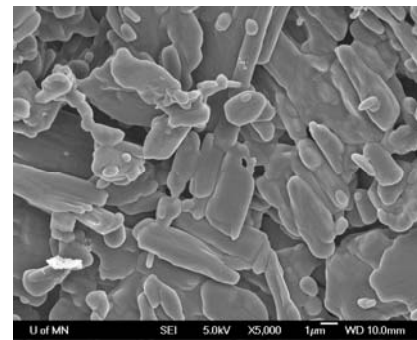
- Nonstoichiometric hydrate (NSH) → Hemihydrate (HH) transformation observed during processing and storage of product.
- Research focuses on Monitoring phase transformation in intact solid dosage form (tablet) by x-ray microdiffractometry.
- Complete NSH → HH conversion in stored NSH tablet by 24 hours (Figure 1).
- SEM images of i) fresh tablet , ii) tablet with in situ NSH to HH conversion, iii) control HH tablet.



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