

SCREENING FOR SOLID-STATE TRANSFORMATIONS DURING SALT SELECTION

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The ideal method for drug delivery of most pharmaceuticals is the oral tablet form. Development of tablet formulations requires a considerable investment of resources and capital. As a consequence it is important to screen for phase transformations prior to engaging in final formulation activities. Ideally, solid-state phase stability would be factored in during the salt selection process so that comprehensive form screening could be conducted on the “best” salt form. Likely solid-state transformations would include hydrate formation, polymorphic transformation, and disproportionation of a salt back to its neutral state. This presentation will discuss such reactions and the relative merit of the use of the high-throughput technique of X-ray powder diffraction in screening for such reactions.