

Internal Seminar

Solid Form Screening of Active Pharmaceutical Ingredients and Their Characterization

Sunil Kumar Rai

CSIR-NCL, Pune

Solid form screening and selection of an active pharmaceutical ingredient (API) is a crucial but challenging step in the pharmaceutical industries during early drug development. Polymorphs and pseudopolymorphs are the general outcome from the screening but play the vital role in the process development. Identifying the most stable formulation in early characterization is a critical issue, not only because of patent-related issues, but also because a company can lose very significant time and money initiating its development with a form that is not the most stable one. Characterization of formulations using X-ray crystallography, differential scanning calorimetry, thermal gravimetric analysis, IR and Raman spectroscopy is routine. Recently, powder Nuclear Magnetic Resonance (NMR) crystallography has gained remarkable attention towards their characterization, but much of the potential of its approach has yet to be exploited.

This presentation will cover the utilization of crystal engineering approach to manipulating the solid form properties of APIs and their characterization using various techniques.

Thursday, Feb 28th 2019

11:30 AM (Tea/Coffee at 11:00 AM)

Seminar Hall, TIFR-H