International Journal of PharmTech Research
CODEN (USA): IJPRIF, ISSN: 0974-4304
Vol.9, No.3, pp 144-165, 2016

Polymorph control: Success so far and future expectations

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Abstract: The phenomenon of the appearance and disappearance of polymorphs has been an enigma for the chemists and formulators alike. The ability to successfully and consistently produce the specific stable polymorphs directly affects the efficiency and speed of drug development, the robustness of manufacturing process, and quality and stability of APIs. Though a number of diverse methods have been utilized and reported for polymorph control, reliable techniques for polymorph control still remain far from perfect. This article discusses different methods for polymorph control like supersaturation, antisolvent addition, temperature and pH control and addition of additives. It also deliberates on their successful applications over the last two decades.

Keywords: Polymorphs, Stability, Supersaturation, Antisolvent, Temperature, pH control, Additives.

Sachin Kumar Singh *et al* /Int.J. PharmTech Res. 2016,9(3),pp 144-165.

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