

Special Issue Reprint

Pharmaceutical Crystals (Volume II)

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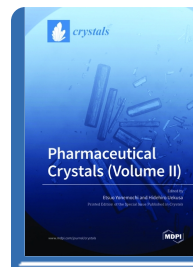
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The crystalline state is the most commonly used as an essential solid in active pharmaceutical ingredients (API). The characterization of pharmaceutical crystals encompasses many scientific disciplines. Still, the core is crystal structure analysis, which reveals the molecular structure of essential pharmaceutical compounds. Crystal structure analysis provides important structural information related to the API's wide range of physicochemical properties, such as solubility, stability, tablet performance, color, and hygroscopicity. These properties should be understood in terms of molecular structures and interactions between molecules in crystals. Information on three-dimensional molecular structures also affords insights into the biological activity of molecules.

The second reprint in the series, "Crystalline Pharmaceuticals (Volume II)" focused on the relationship between crystal structure and physicochemical properties. In particular, the new crystal structure of pharmaceutical compounds involving multi-component crystals, such as co-crystals, salts and hydrates, and polymorph crystals, were reported with interest. Such crystal structures contributed to the latest studies that combine morphology, spectroscopic, theoretical calculation, and thermal analysis with the crystallographic study. Thus, this reprint highlights the importance of crystal structure information in many areas of pharmaceutical science and presents current trends in the structure-property study of pharmaceutical crystals. The Guest Editors of this reprint hope the readers enjoy a wide variety of recent studies on "Crystalline Pharmaceuticals."

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