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Title:Characterization of poly-amorphous indomethacin by terahertz spectroscopy

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Abstract:Since the stability of amorphous solids of pharmaceuticals differs depending on the method of preparation, there are several solid-state chemical structures in amorphous solids, which like poly-amorphous solids might have different characteristics the same as in crystalline solids. However, it is not easy to identify the differences in solid-state characteristics between amorphous solids using conventional analytical methods, such as powder X-ray diffraction analysis, since all of the poly-amorphous solids had similar halo X-ray diffraction patterns. However, terahertz spectroscopy can distinguish the amorphous solids of indomethacin with different physicochemical properties, and is expected to provide a rapid and non-destructive qualitative analysis for the solid materials, it would be useful for the qualitative evaluation of amorphous solids in the pharmaceutical industry. © Springer Science+Business Media, LLC 2012.

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