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标题: Conformational Characteristics of Chiral and Racemic Naproxen Molecules Investigated by Terahertz Time-domain Spectroscopy
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摘要: Absorption spectra in the terahertz region between 6 and 66 cm(-1) (0.2 similar to 2.0 THz) were measured for S-(+)-, R-(-) and RS-naproxen pharmaceutical molecules in crystalline form using time-domain terahertz spectroscopic (THz-TDS) technique at room temperature. Different absorption features were observed for the racemic RS-naproxen and its corresponding enantiomers (S-(+)- and R-(-)-naproxen). The observed THz absorption bands are strikingly sensitive to the change of subtle conformational structures despite that the isostructurality exists within such crystal molecules. The results show that the THz-TDS technique can be definitely used for distinguishing between chiral and racemic compounds in pharmaceutical and biological fields.
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