

Synthesis of 3,4,5-Trimethoxy-4'-hydroxystilbene Derivatives and Crystal Structure of Ethyl {4-[(*E*)-2-(3,4,5-trimethoxyphenyl)vinyl]phenoxy}acetate

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Several new 4'-O-substituted derivatives of 3,4,5-trimethoxy-4'-hydroxystilbene were synthesized and characterized by their IR and NMR spectra. The crystal structure of ethyl {4-[(*E*)-2-(3,4,5-trimethoxyphenyl)vinyl]phenoxy}acetate, one of these stilbene derivatives, has been solved by single-crystal X-ray structure analysis. The results show that all carbon and oxygen atoms in the molecule are nearly coplanar except C(16), and molecules stack to a column arrangement owing to C–H $\cdots\pi$ interactions. Pairs of these columns are linked by other molecules, and these linker molecules themselves also produce a column along the other direction. A puckered cyclic tetramer $R_4^4(46)$ is formed and the tetramer propagates itself *via* intermolecular hydrogen bonds and C–H $\cdots\pi$ interactions. In this way, molecules are interrelated and assembled to a two-dimensional layer structure.

Key words: 3,4,5-Trimethoxy-4'-hydroxystilbene Derivatives, Crystal Structure, Hydrogen Bond