Comparison of Alkoxy-substituted 4,4′′′-Distyrylbiphenyls
and the Corresponding 4,4′′′-Distyrylbenzenes

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Configurationally highly pure (E,E)-4,4′-bis(styryl)biphenyls 2a – e were obtained by Siegrist reactions of 4,4′-dimethylbiphenyl 3 and alkoxy-substituted benzaldimines (4a – e). DSC measurements have indicated different crystalline modifications of these conjugated compounds. The stilbenoid chromophores of 2a – e are compared to the stilbenoid chromophores in the OPV series, which have a similar length of conjugation. The intense fluorescence and the high transparency in the visible region are promising properties for an application of the donor-substituted compounds 2a – e in two-photon absorption (TPA) techniques.

Key words: Absorption, Condensation Reaction, Conjugation, Fluorescence