

Publication

3,2':6',3"-tpy Domains in 4'-(4-n-Alkyloxyphenyl)-3,2':6',3"-Terpyridines

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The preparation and characterization of 40-(4-n-octyloxyphenyl)-3,20:60,300-terpyridine (8) and 40-(4-n-nonyloxyphenyl)-3,20:60,300-terpyridine (9) are reported. The single crystal structures of 40-(4-n-hexyloxyphenyl)-3,20:60,300-terpyridine (6), 40-(4-n-heptyloxyphenyl)-3,20:60,300-terpyridine (7), and compounds 8 and 9 have been determined. The conformation of the 3,20:60,300-tpy unit is trans,trans in 6 and 7, but switches to cis,trans in 8 and 9. This is associated with significant changes in the packing interactions with a more dominant role for van der Waals interactions between adjacent n-alkyloxy chains and C-Hmethylene... interactions in 8 and 9. The solid-state structures of 6 and 7 with the n-hexyloxy and n-heptyloxy chains feature interwoven sheets of supramolecular assemblies of molecules, with pairs of n-alkyloxy chains threaded through cavities in an adjacent sheet

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