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Polysilanes comprise an inorganic polymer backbone of linearly catenating, conjugating silicon atoms, the unique spectroscopic feature of which is a UV absorption due to the Si σ - σ^* transition at wavelengths between 300 and 400 nm, dependent on substituent effects, both electronic and steric. We recently showed that the sign and magnitude of the dissymmetry ratio, g_{abs} (ratio of CD to UV absorption intensity, $\Delta\epsilon/\epsilon$), for poly(diarylsilylene)s containing enantiopure chiral aryl substituents in dilute solution, has a marked dependence on aryl ring substitution, chiral content, comonomer and temperature.^{1,2} In one case, a temperature-dependent helix-helix transition is observed.³ We now report our results concerning the optical activity of enantiopure chiral containing poly(diarylsilylene) aggregates formed upon mixing a poor solvent (eg. methanol) with a poly(diarylsilylene) solution (eg. toluene or THF), as exemplified in Figure 1.

The sign of the Cotton effects and hence chirality of the optically active aggregates is solvent-dependent, affording almost mirror image CD profiles for toluene and THF solutions, while the UV profiles are almost identical. This is the first observation of such solvent-dependent enantiomorphism, which we term "solvatoenantiomorphism", among the polysilanes.

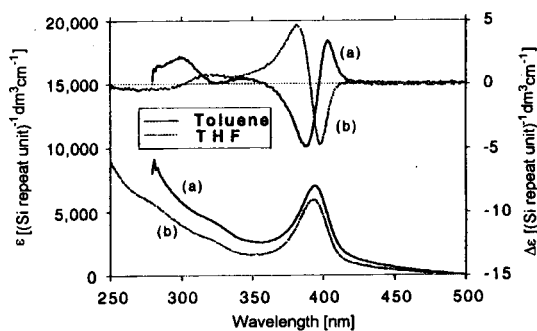
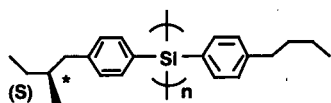


Figure 1. CD and UV spectra of 1 aggregates: (a) Toluene 60%/MeOH 40% (b) THF 60%/MeOH 40%; 20 °C; $6 \times 10^{-5} \text{ M}$

References.

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 [2] J. R. Koe, M. Fujiki, M. Motonaga and H. Nakashima, *Chem. Commun.* **2000**, 389-390.
 [3] J. R. Koe, M. Fujiki, M. Motonaga and H. Nakashima, *Macromolecules* **2001**, *34*, 1082-1089.