

Enantioseparation of New Chiral Telluronium Complexes Using Reversed-Phase and Normal-Phase High-Performance Liquid Chromatography

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In the chalcogen series, tellurium species exhibit the strongest chalcogen bonding interaction with electron-rich atom. This property explains the interest toward tellurium-based derivatives and their use in different applications, such as, for instance, organocatalysis [1].

The main goal of the present project was to study a separation of enantiomers of 14 new chiral telluronium complexes in high-performance liquid chromatography by using polysaccharide-based chiral columns and normal-phase and reversed-phase eluents.

Dependence of retention of enantiomers and their separation on the structure of chiral compounds was studied.

[1] Pale P., Mamane V., Padilla-Hernandez A., Weiss R., Hernandez A. 'Chalcogen-Bond Catalysis: Telluronium-Catalyzed [4+2]-Cyclocondensation of (in situ Generated) Aryl Imines with Alkenes.' Chemistry—A European Journal, 2022. DOI: 10.1002/chem.202203372.