

# MALDI-TOF MS and Morphology Studies of Thiactalixarene-Silsesquioxane Products of Oligo- and Polycondensation

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## Abstract

© 2014, Springer Science+Business Media Dordrecht. For the first time condensed silsesquioxane derivatives of tetratrialkoxysilyl compounds have been characterized by MALDI-TOF mass spectrometry. Tetrasubstituted p-tert-butyl thiactalix[4]arene derivatives containing organosilicon fragments with variable stereochemistry were chosen as organosilicon compounds for polycondensation. Information obtained from mass spectra was used to deduce both the structures of oligomeric derivatives, as well as the structure of silsesquioxane framework. The morphology of formed polysilsesquioxanes was investigated by scanning and transmission electron microscopy.

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## Keywords

Colloid particles, MALDI, Polycondensation, Silsesquioxane