

NEW SILICONE DERIVATIVES WITH BIOCIDAL ACTIVITY

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1,3-Bis(chloromethyl)tetramethyldisiloxane was used as substrate to attach telechelic N-heterocycles by thioalkylation reaction. Reaction products were isolated in crystalline state and completely structurally characterized by X-ray single crystal diffraction, elemental and spectral (IR, NMR and UV) analyses. The presence in the structure of polar N-heterocycles with highly flexible, hydrophobic organosiloxane fragment as a spacer between them to which they are connected by sulfide bridges creates the premises for compounds to present the ability to self-organize differently depending on the polarity of the environment. Given these and the known biological activity of nitrogen heterocycles, the products have been investigated from this point of view to see how the siloxane component and the nature of the environment affect this behavior.

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