# Obtaining of solid polimerelectrolits on CN group containing comb-type matrics base.

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Hydrosilylation reaction of 2.4.6.8-tetrahydro-2.4.6.8-tetramethylcyclotetrasiloxane with allyl cyanideand vinylthiethoxsilane at different molar ratios of initial compounds in the presence of Karstedt's catalyst ($Pt_2[(VinSiMe_2)_2O]_3$). The reaction was carried out in dilute solution of toluene in inert atmosphere.

Polymerization reaction of$D_4^R$and $D_4^{R,R'}$with blocking agent or without them by presence of potassium hydroxide in inert atmosphere at 50-110$^0$temperature was studied and regular comb-type polymers were synthesized. It's determined that in co-polymerization reactions molecular masses of polymers can be regulated by varying of blocking agents.

The synthesized organosiloxanes $D_4^R$ and $D_4^{R,R'}$ type's of copmounds and polymers structure and composition were studied by FTR,1H, 13C and 29Si NMr spectroscopy.

Via sol-gel processes of polymers with lithium trifluromethylsulfonate (triflate) or lithium bis (trifluoromethylsulfonyl)imide and 1-2 drop of 0.1 M HClalchohol solutionhave made solid polymer elecrtolite.

Electrophysical properties of synthesized solid polymer electrolites were studied and electro conductivity of membrans was determined.