polymerization of cyclosiloxanes in anion polymerization, started by butyllithium in the presence of DMF

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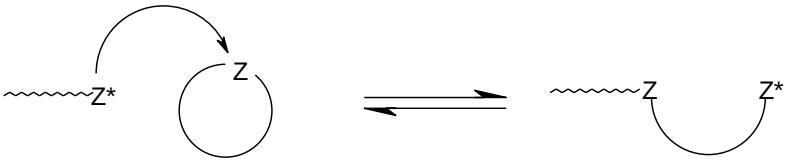
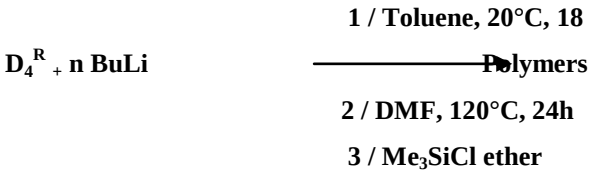
Two methods of polymerization give access the linear polysiloxanes : the functional linear oligomer polycondensation and polymerization by opening of cycle of the cyclosiloxanes. This type of polymerization was described in many publications [1-4]. Indeed, the cycles having a grouping Z present a polarized connection likely to open in the presence of a center active.



Our objectivies is to study the polymerization of cyclosiloxanes by opening of cycle. The substituent of the organosiloxanes more used is the methyl group.

As we explained previously, we choose to study the behaviour of the cyclosiloxanes carrying groups Alkyls, Vinyls, Alcools… etc, in anion polymerization, started by butyllithium in the presence of an activator DMF, at the temperature of 120°C. After having fixed our choice on the principal objectives, we defined a strategy of the synthesis. It appeared convenient to us to use monomers whose substituents are alkyls, aryls or Alcohols, in order to study the influence of the latter on polymerization.



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