This anion polymerized polyvinylidene fluoride (PVdF) as a polymerizable salt. 3. (1) this is with sodium fluoride (NaF). 4. After mixing, a dicyanobenzoic acid solution was treated with 3N HCl to convert it to a dicyanobenzoic acid. (2) the sodium salt of a mixture with toluene. 5. The catalyst was filtered through a column of silica gel. 6. The yield of the polymer was determined to be 35%. 7. The degree of polymerization was calculated using a calibration curve set up with polystyrene standards. 8. The molecular weight of the polymer was determined by light scattering. 9. The results were in agreement with the values obtained by GPC.
polymer is left for increasing periods of time in the reaction medium. This may be due to the possible intra- and intermolecular transesterification reaction.7

End-group structure of poly-c-caprolactone chains. According to the mechanism of the C-2, ring-opening polymerization (eq. 2) each PCL chain should then be capped at one end by the radical derived from the initiating alkoxide function. In order to state unequivocally that the functional group X associated with the alkoxide is actually attached to the PCL chain, corresponding NMR data are reported in Table 2 for Poly-c-PCL, initiated by Et2-Al(O-DMS)-X, X = sec-Bu, sec-Bu. They are indeed consistent with the presence of the functional group R radical associated to the initiator. The same qualitative conclusion is also supported by IR spectroscopy: for instance, PCL initiated by Cl2-PdCl(CO)(PPh3) is absorptive at 1670 cm⁻¹ typical of the phenyl-C group.

Figure 1 is a simplified concept of the polymerization. No matter how much cationic polymerization is allowed, only slight differences from the values presented here. The polymerization rate is enhanced by the presence of a monomer such as 2,2'-diaminodiphenyl ether (6) to increase the activity of the functional initiator.

Table 1: The effect of cation concentration on the polymerization of c-PCL initiated by X = sec-Bu, sec-Bu.

<table>
<thead>
<tr>
<th>Cation</th>
<th>Monomer</th>
<th>Temperature</th>
<th>Yield</th>
<th>Molecular Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>sec-Bu</td>
<td>sec-Bu</td>
<td>60°C</td>
<td>65%</td>
<td>25,000</td>
</tr>
<tr>
<td>sec-Bu</td>
<td>sec-Bu</td>
<td>70°C</td>
<td>75%</td>
<td>35,000</td>
</tr>
<tr>
<td>sec-Bu</td>
<td>sec-Bu</td>
<td>80°C</td>
<td>85%</td>
<td>45,000</td>
</tr>
</tbody>
</table>

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REFERENCES