

**B.Sc. Semester-VI  
Organic Chemistry  
Paper-XIV**

**2. Synthetic Polymers**

**Coverage:**

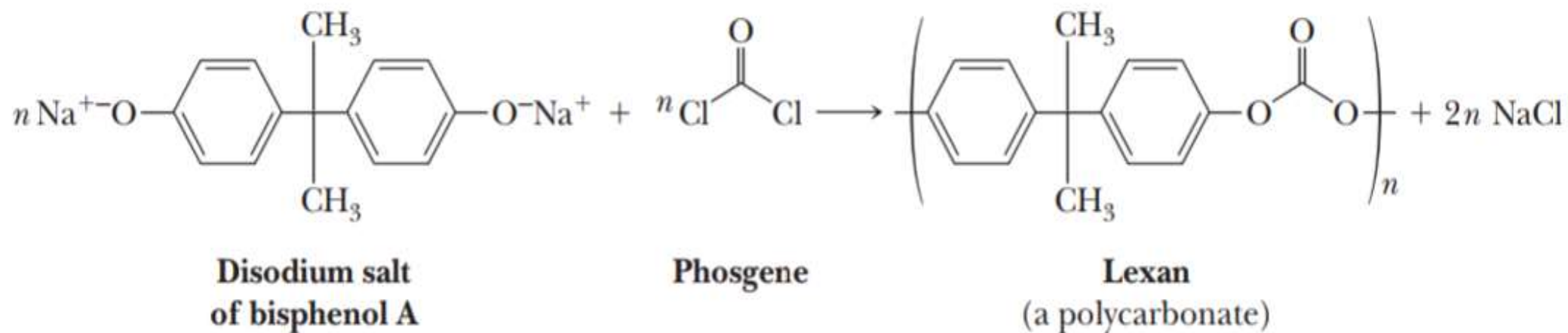
**13. Polycarbonates**



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## 13. Polycarbonates

Polycarbonates, the most familiar of which is Lexan, are a class of commercially important engineering polyesters. In the production of Lexan, the disodium salt of bisphenol A (as mentioned) reacts with phosgene to form the polymer.



Lexan is a tough, transparent polymer with high-impact and tensile strengths, and it retains its properties over a wide temperature range. It has found significant use in sporting equipment, such as bicycle, football, motorcycle, and snowmobile helmets as well as hockey and baseball catchers' face masks. In addition it is used to make light, impact-resistant housings for household appliances and automobile and aircraft equipment and to manufacture safety glass and unbreakable windows.

# Polycarbonates

Carbonyl group is linked to two —OR groups,  $[O=C(OR)_2]$

