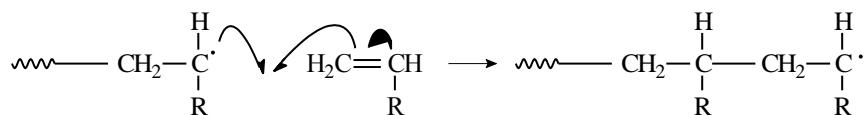
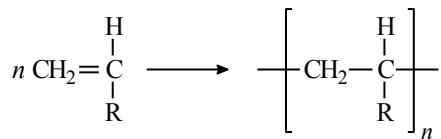


BÖLÜM 5 RADİKALİK KATILMA POLİMERİZASYONU



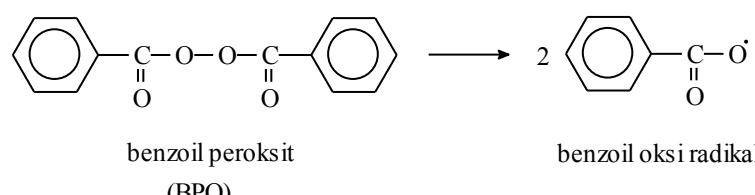
5.1 RADİKALİK KATILMA POLİMERİZASYONUNUN BAŞLATILMASI

kimyasallar

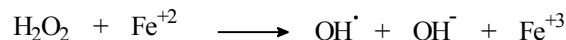
organik peroksit veya hidroperoksitler

azo bileşikleri

redoks başlatıcılar

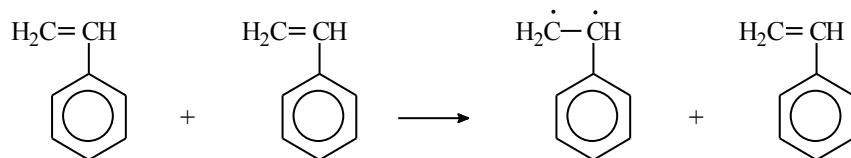


| başlatıcı | sıcaklık aralığı (°C) |
|--------------------------------------|--------------------------|
| benzoil peroksit | 60-80 |
| di- <i>t</i> -bütil peroksit | 80-100 |
| asetil peroksit | 70-90 |
| dikümil peroksit | 120-140 |
| bis(<i>p</i> -brombenzoil) peroksit | 60-80 |
| 2,2'-azobisisobütironitril | 50-70 |
| 2,2'-azobis-2-metilbüütironitril | 60-80 |

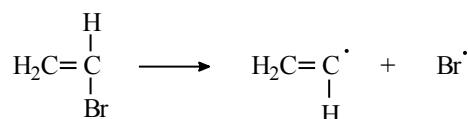


fiziksel etkenler

ışık

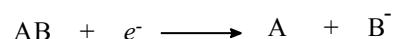
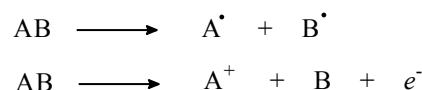


ışık ve UV-ışınları

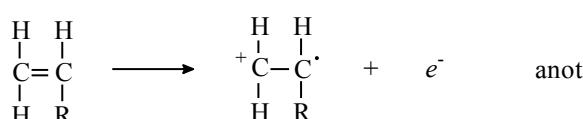


vinil bromür

yüksek enerjili ışınlar

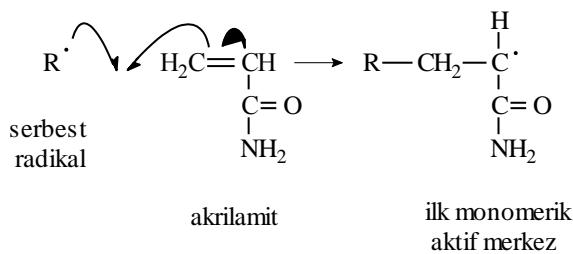


elektrokimyasal yöntem

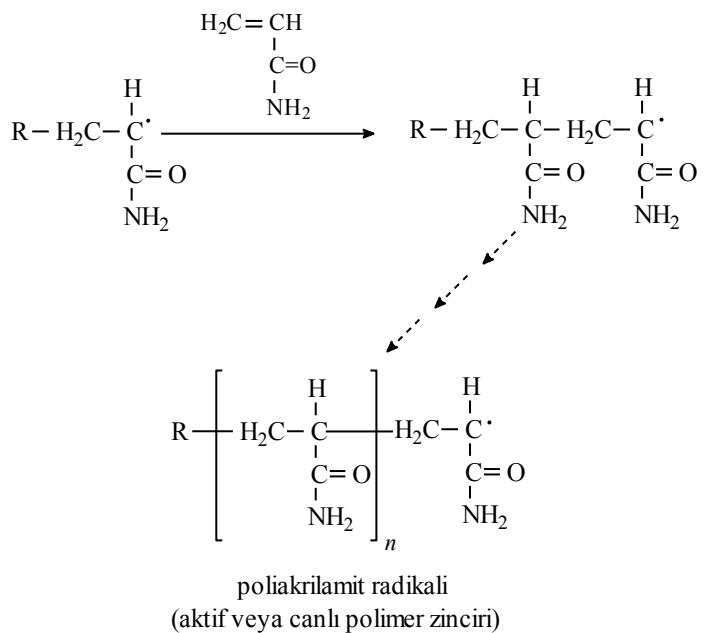


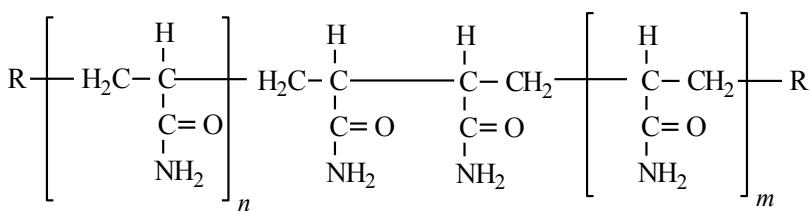
radikal-katyon

5.2 ZİNCİR TEPKİMELERİ

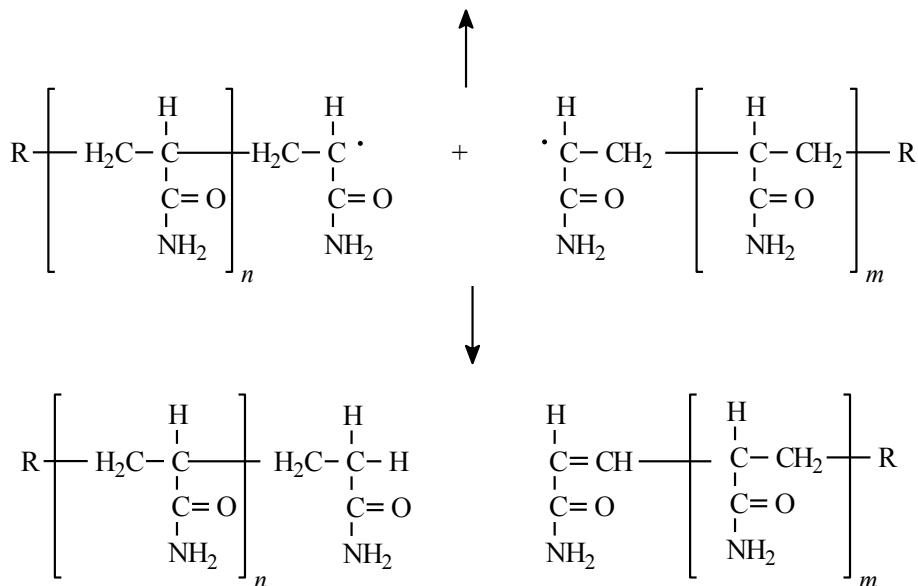


ilk monomerik
aktif merkez

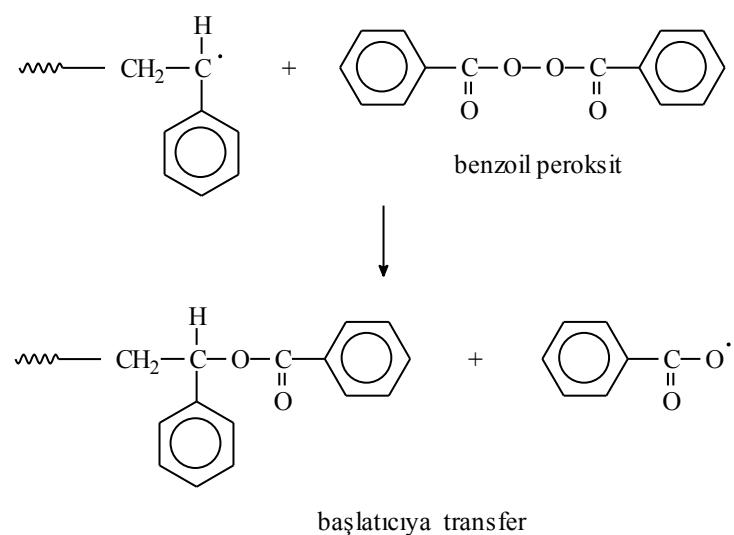




birleşerek sonlanma

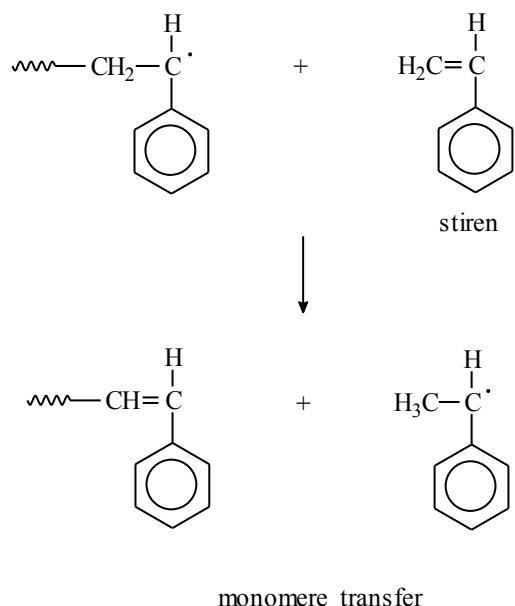


ayrı-ayrı sonlanma



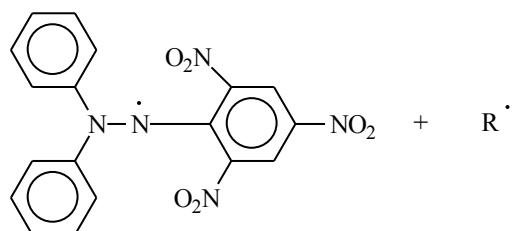
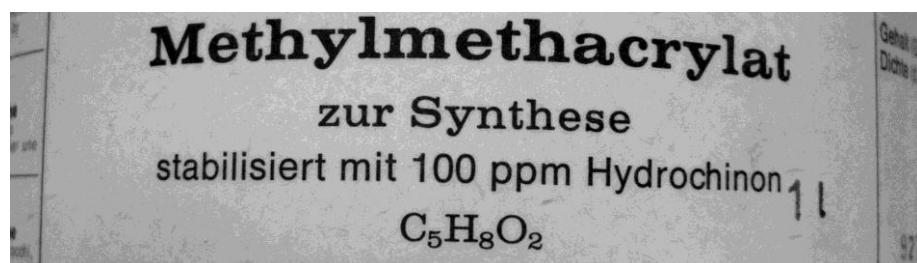
başlatıcıya transfer

Aktif bir polistiren zinciri, stiren moleküllerinden birisiyle tepkimeye girerek de aktifliğini kaybedebilir (*monomere zincir transferi*).

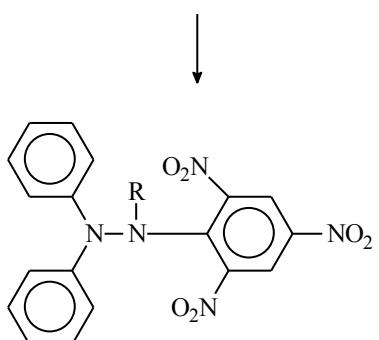


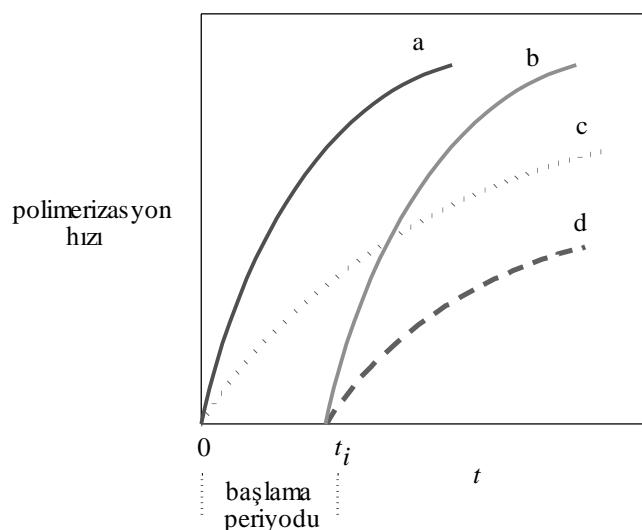
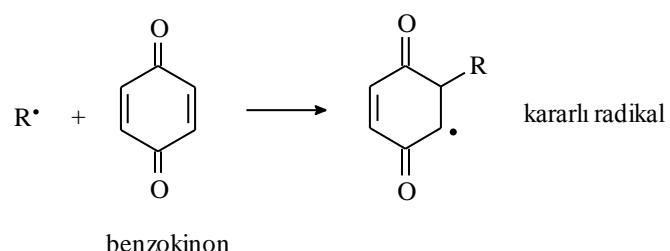
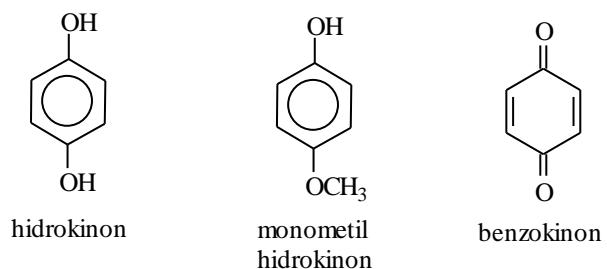
Stirenin polimerizasyonu, zincir transferine yatkın karbontetraklorür gibi bir çözücüde yapılrsa *çözücüye zincir transfer tepkimesi*,

5.3 ÖNLEYİCİ VE GECİKTİRİCİLER



difenil pikril hidrazil





5.4 BAŞLATICI ETKİNLİĞİ