Polimerlar.
Plastmassalar. Tolalar.

Maqsad:

- Plastmassalar va tolalar qanday moddalar ekanligini va ularning polimerlardan farqini bilish;
- Plastmassalar va tolalarni siiflanishini o’rganish;
- Plastmassalarni olinish usullari va qo’llanilish yo’nalinishini o’rganish.

Kelib chiqishiga ko’ra polimerlarni sinflanishi

Tabiiy

- Kraxmal
- Selluyloza
- Oqsil
- Sun’iy kauchuk

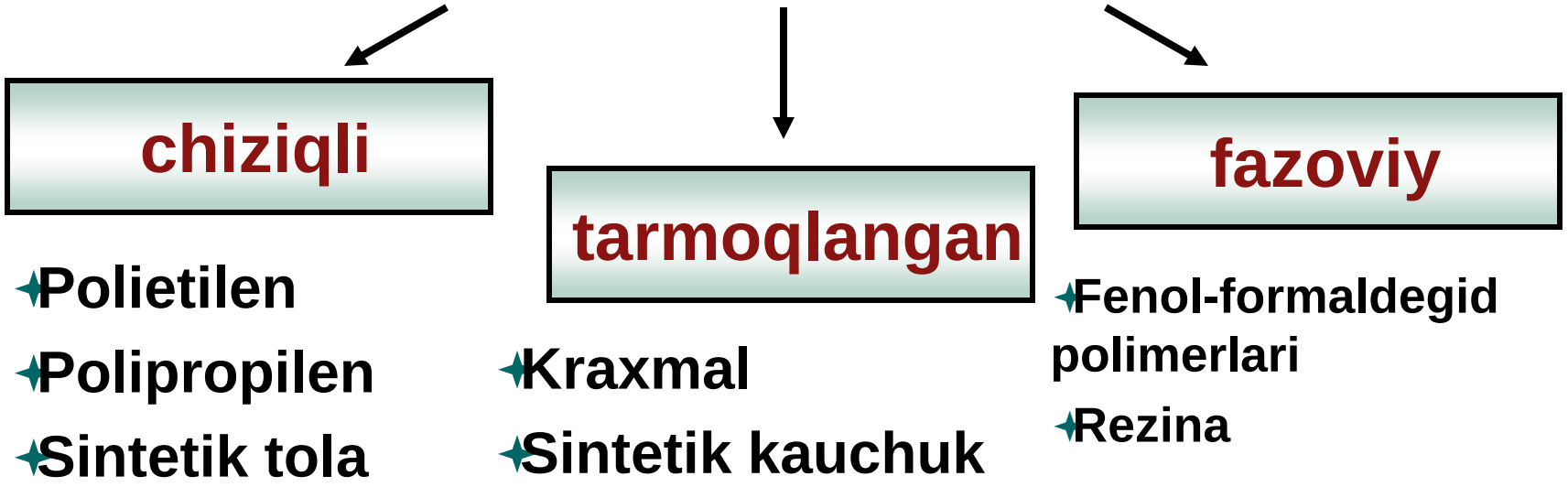
Sun’iy

- Viskoza
- Selluloid
- Asetat tolasi

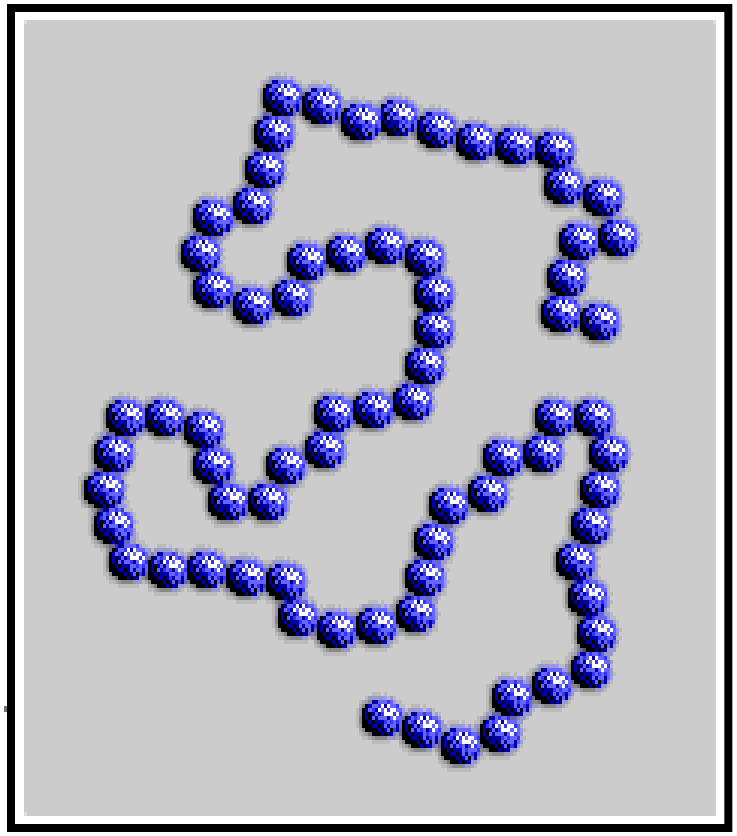
Sintetik

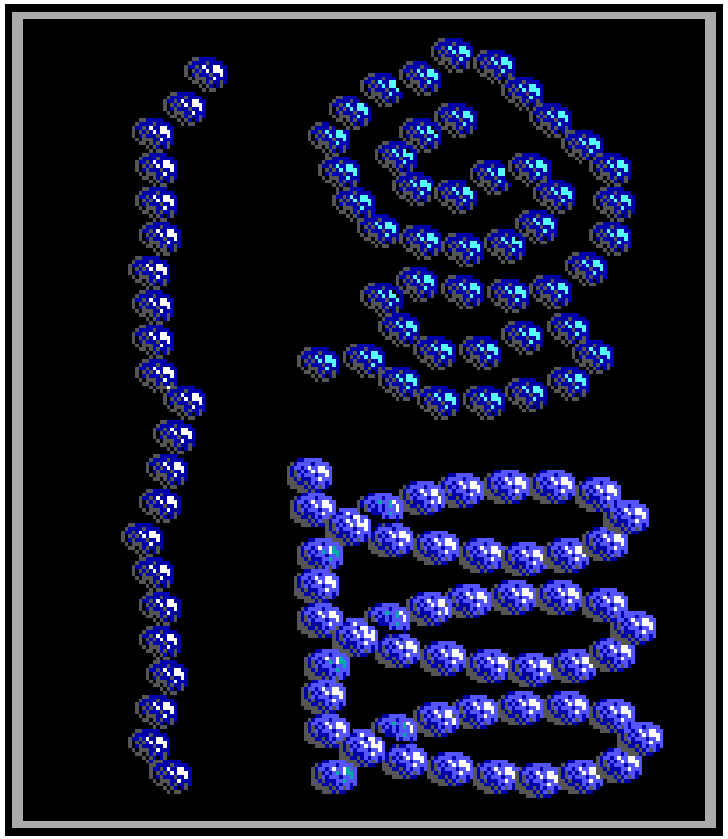
- Polietilen
- Fenol-formaldegid polimerlari
- Sintetik tolalar
- Sintetik kauchuk

Makromolekulani shakliga ko’ra polimerlarni sinflanishi



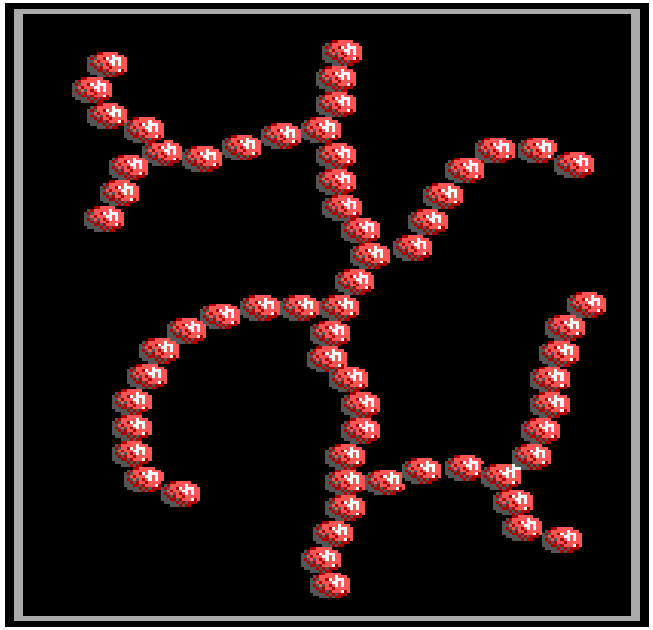
Molikula shakli



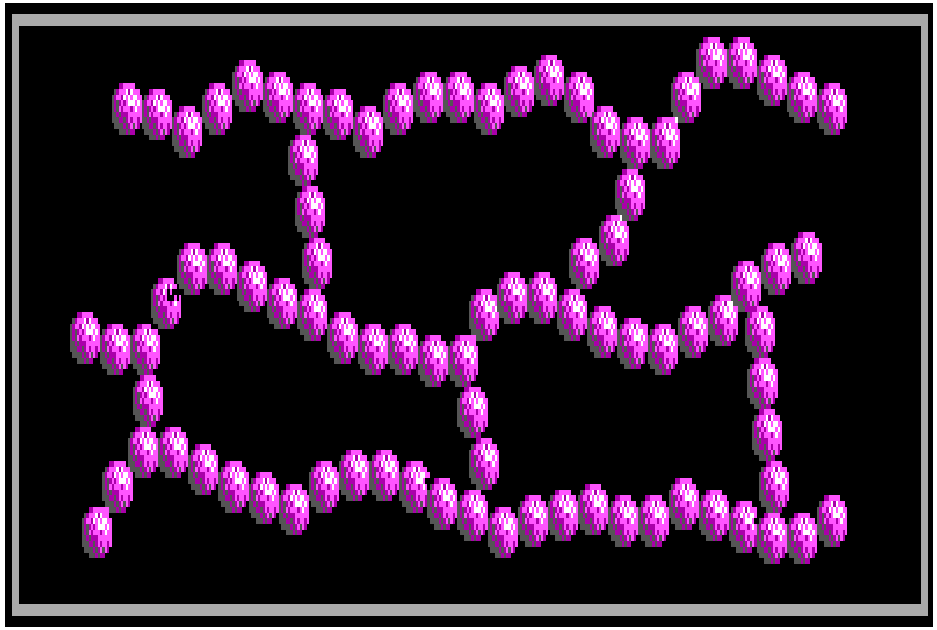


Chiziqli shakl

Molikula shakli



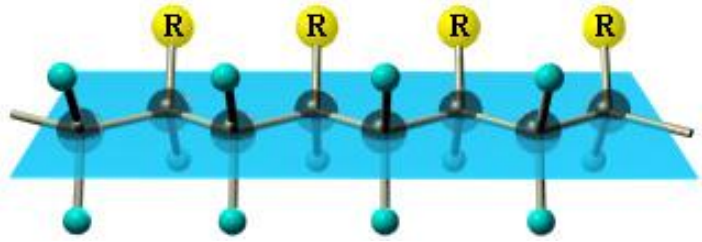
Tarmoqlangan shakl

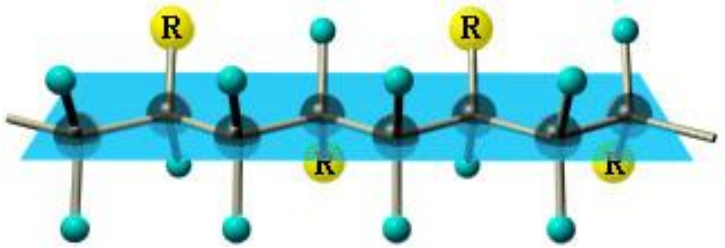


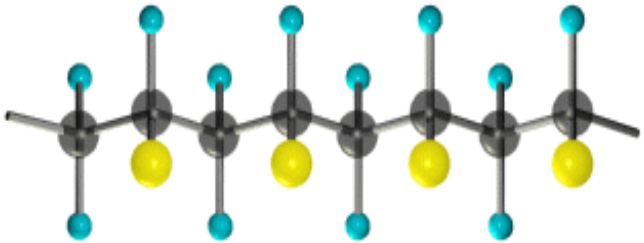
Fazoviy shakl

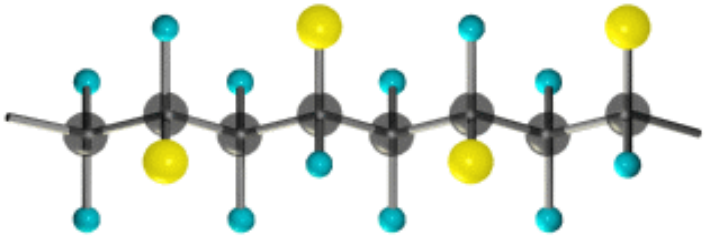
Sintetik kauchuklarni fazoviy konfigurasiyasi

Stereoregulyar tuzilish

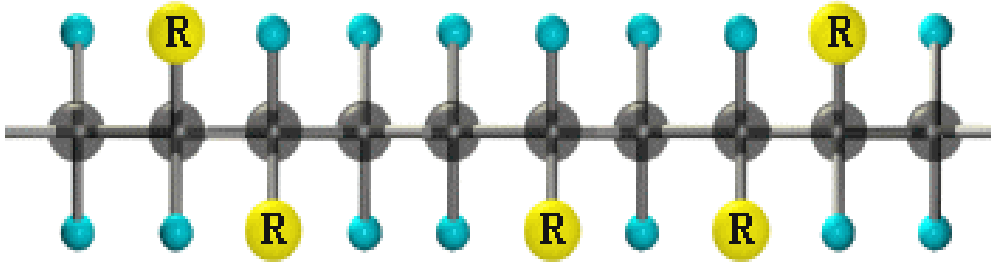








No Stereoregulyar tuzilish



Qizdirish bo’yicha polimerlarni sinflanishi

termoplastik polimerlar

- Polietilen
- Polipropilen
- Polivinilxlorid
- Kapron

termoreaktiv polimerlar

- Fenol-formaldegid smolalar
- Poliefir smolalar
- Karbomid smolalar

Plastmassalar xossalari va ularning shakllanish usullari

Plastmassalar xossalari:

- Yengil
- Izolyatorlar
- Korroziyaga chidamli
- Barqaror
- Arzon
- Qayta ishlash yengil

Plastmassalarni shakllanish usullari:

- Kattalashtirish
- Kichiraytirish
- Shakillash

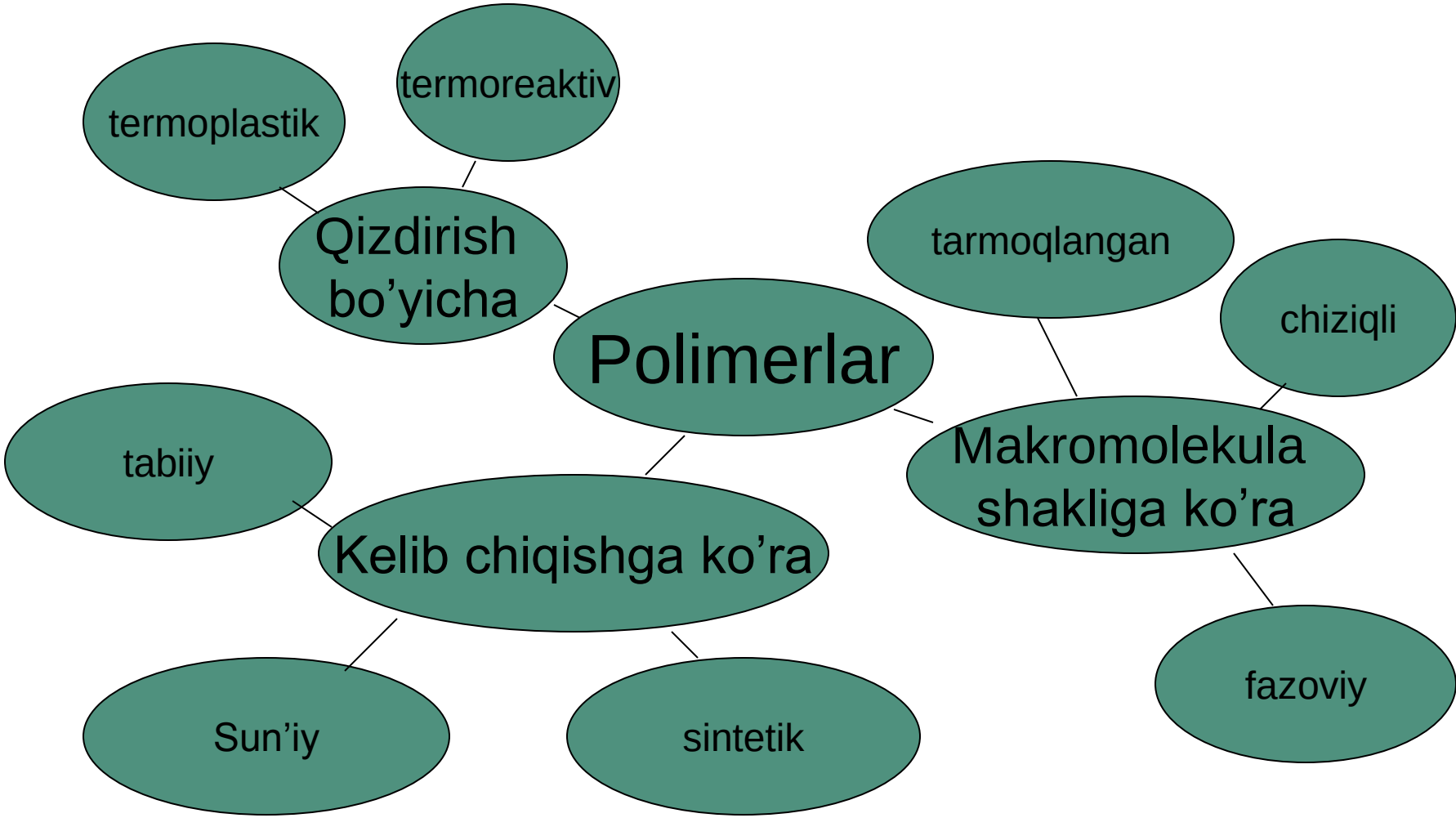
Filerlar orqali o’tkazish

Plastmassalarni qo’llanilishi

Ekologik muammolar

Plastmassalar ishlatilashi natijasida qanday ekologik muammolarga dush kelish mumkin?

Klaster


termoplastik
termoreaktiv
Qizdirish bo’yicha
tarmoqlangan
chiziqli
Polimerlar
tabiiy
Makromolekula shakliga ko’ra
Kelib chiqishga ko’ra
fazoviy
Sun’iy
sintetik

Toifalash jadvali

Qizdirish bo’yicha	Kelib chiqishga ko’ra	Makromolekula shakliga ko’ra

B/B/B jadvali

bilaman	Bilishni xoxlayman	Bilib oldim
Sinflanishini 1. Qizdirish bo’yicha 2. Kelib chiqishga ko’ra 3. Makromolekula shakliga ko’ra		