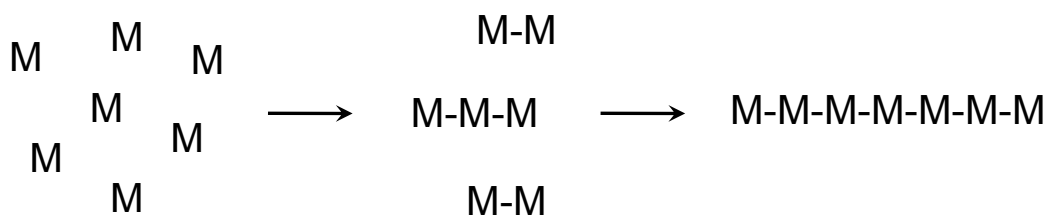
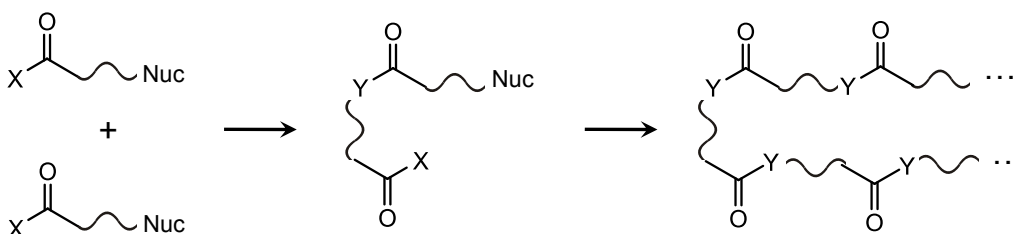


# Condensation (Step-Growth) Polymers

Difunctional monomers condense to oligomers, then to polymers.

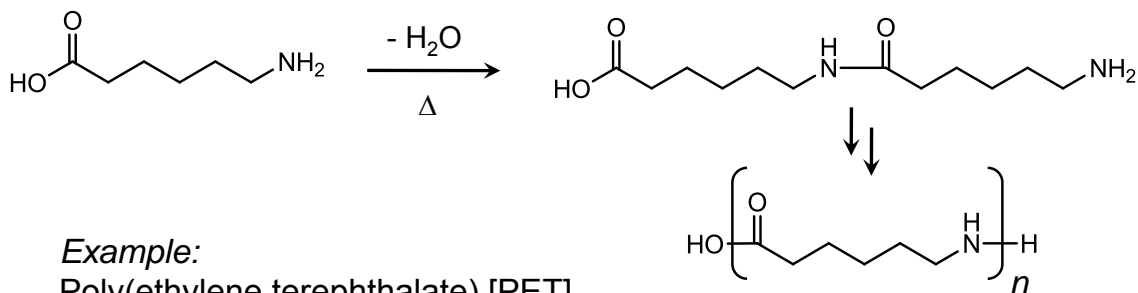


*Example:* Polyesters & polyamides.

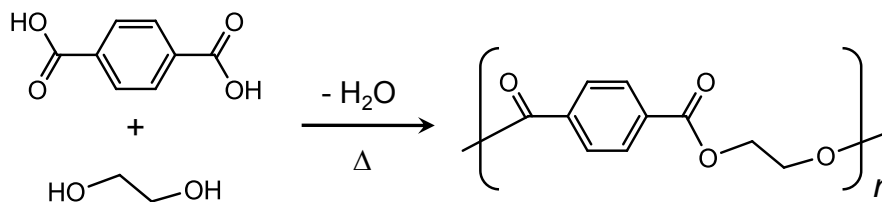


# Condensation (Step-Growth) Polymers

*Example:* Nylon 6 polyamide.

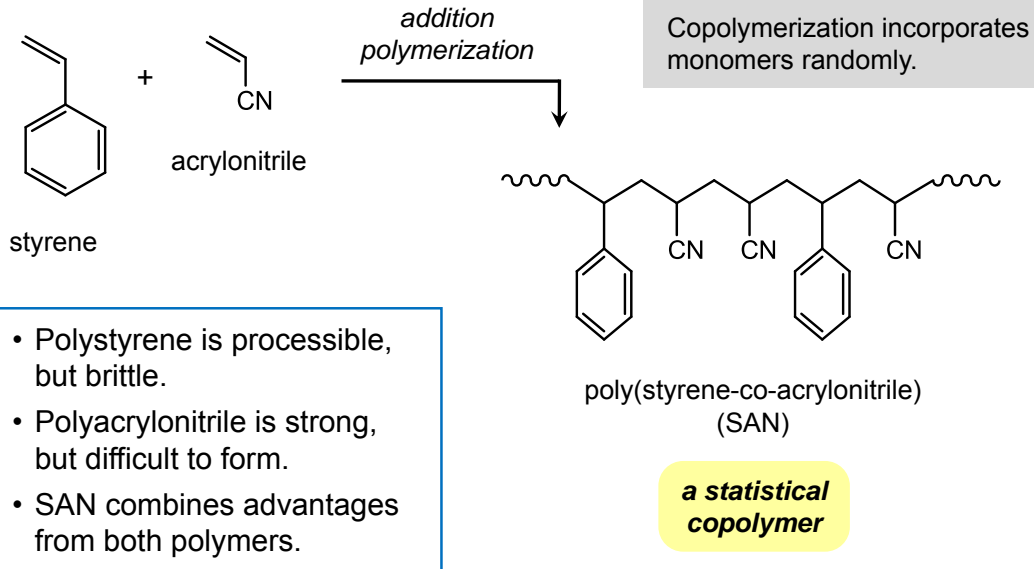


*Example:*  
Poly(ethylene terephthalate) [PET]  
polyester.



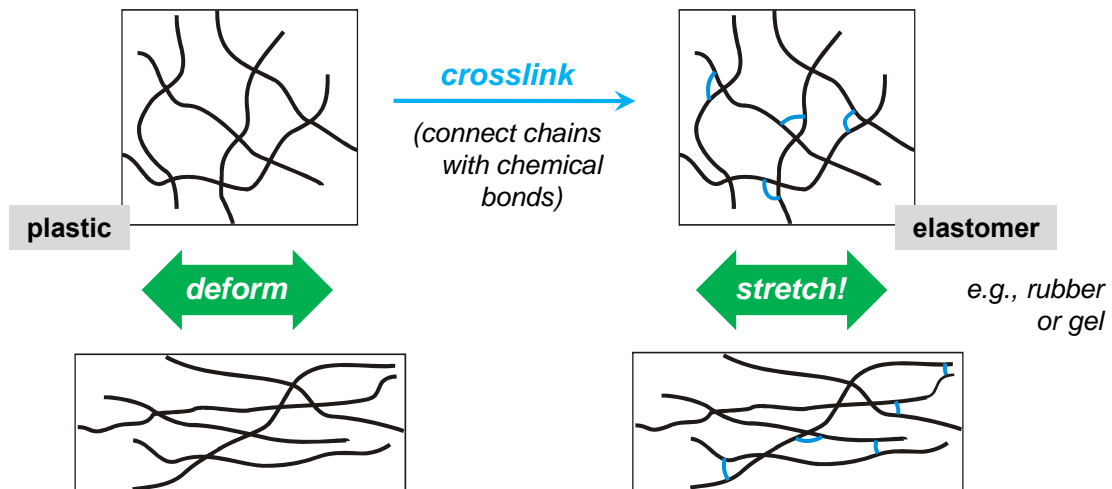
# Copolymerization

Polymerization with mixture of monomers give polymers composed of that mixture.



## Plastics vs. Elastomers

- Polymer flow can be prevented by crosslinking chains.



Plastic deformation of uncrosslinked polymers is **irreversible**.

Elastic deformation of crosslinked polymers is **reversible**.

# Chemical Crosslinking of Polyalkenes

“Vulcanization” of poly(butadiene) generates an elastomeric network.

