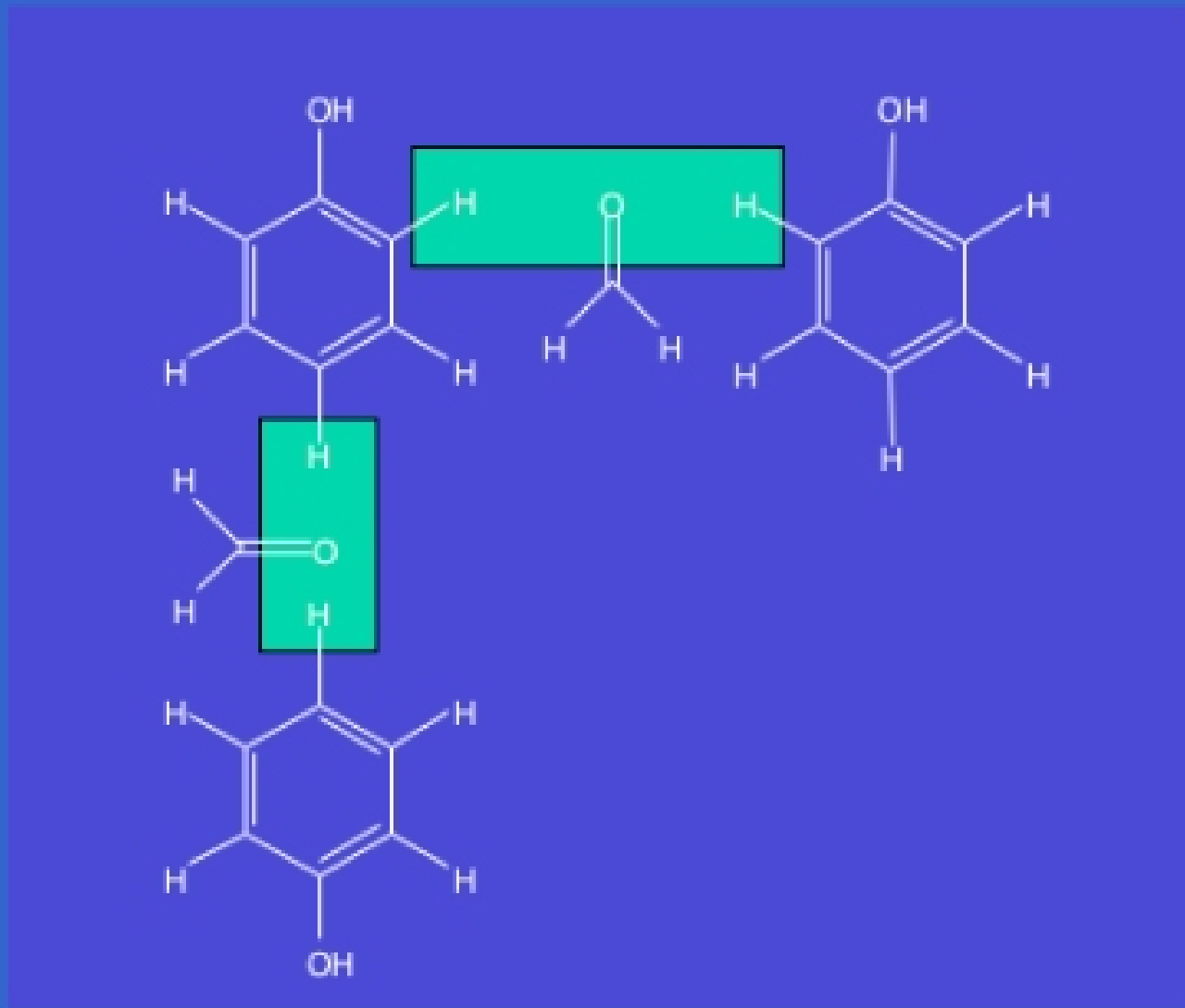
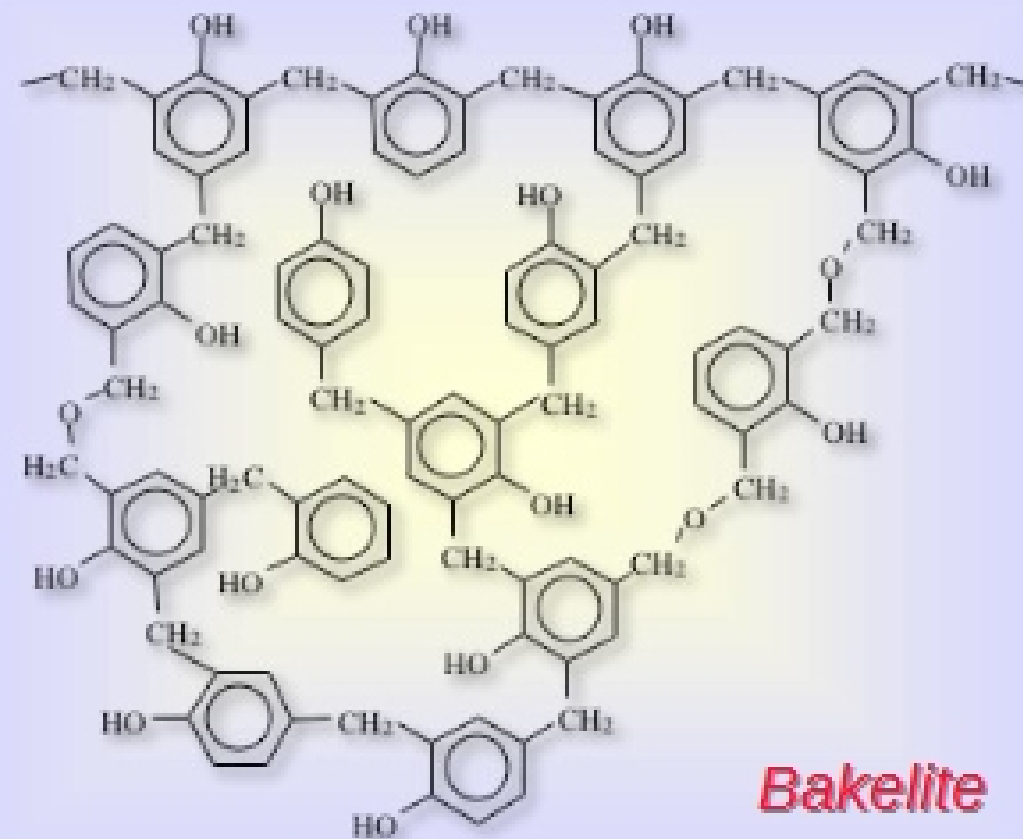


The phenol + formaldehyde rxn

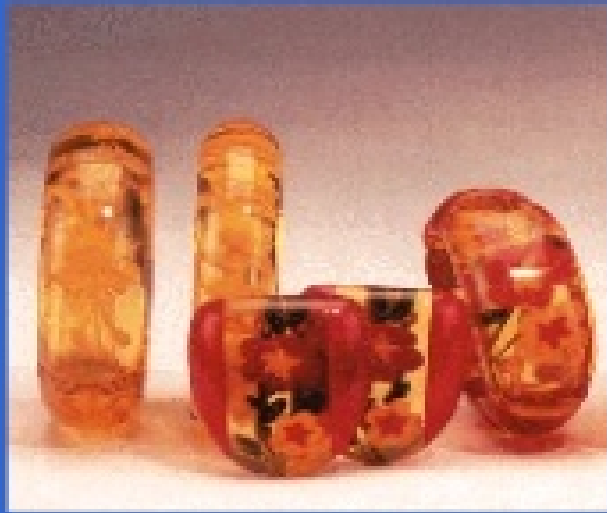


Network formation

Further reaction under heat & pressure builds up densely cross-linked network. This is Bakelite, a *thermosetting* polymer. Once reaction is complete, material cannot be reheated and/or reformed



Bakelite - Material of a Thousand Uses



Clear Bakelite items



Phenolic resin/celluloid clock



Bakelite telephone



Bakelite camera



Bakelite radio



Bakelite microphone