Chemistry 2302

Workshop 27 Solutions Bisphenol A Polycarbonate, and the Alternatives

1. Multiple repeat units:

Using brackets:

$$\begin{array}{c} & & \\$$

Out of these two bracket structures, the first one is incorrect on a technicality; it ends in a hydrocarbonate group (-O(CO)OH) on the right side, which spontaneously loses CO_2 to yield an alcohol. But you wouldn't necessarily know that, so I'd accept either answer if this problem had been on an exam.

Both of these structures illustrate an *alternating* copolymer, with perfect alternation of bisphenol A and phospgene components.

3.