$$(H) \qquad \begin{array}{c} -\text{continued} \\ H \qquad \\ (H) \qquad \\ O \qquad \\ H \qquad \\ O \qquad \\ O \qquad \\ H \qquad \\ O \qquad \\ O \qquad \\ H \qquad \\ O \qquad \\$$

While the foregoing examples correspond to those units wherein  $\mathbb{Z}^4$  is a single bond,  $\mathbb{Z}^4$  which is other than a single bond may be combined with similar acid labile groups. Examples of units wherein  $\mathbb{Z}^4$  is other than a single bond are substantially the same as illustrated above.

In formula (7), R<sup>1</sup> is as defined above, and Y<sup>A</sup> is hydrogen, or a polar group having one or more structures selected from among hydroxyl, cyano, carbonyl, carboxyl, ether bond, ester bond, sulfonic acid ester bond, carbonate bond, lactone ring, sultone ring, and carboxylic anhydride.

Illustrative, non-limiting examples of the recurring units having formula (7) are shown below. Herein R<sup>1</sup> is as defined above.