

## chemical amplification

Process consisting of a chemical reaction that generates a species that catalyzes another reaction and also the succeeding catalyzed reaction.

Notes:

1. Chemical amplification can lead to a change in structure and by consequence to a change in the physical properties of a polymeric material.
2. The term 'chemical amplification' is commonly used in photo-resist lithography employing a photo-acid generator or photo-base generator.
3. An example of chemical amplification is the transformation of [(*tert*-butoxycarbonyl)oxy]phenyl groups in polymer chains to hydroxyphenyl groups catalyzed by a photo-generated acid.

**Source:**

PAC, 2004, 76, 889 (*Definitions of terms relating to reactions of polymers and to functional polymeric materials (IUPAC Recommendations 2003)*) on page 891