Terminology of polymers

1. Copolymerization: polymerization in which a copolymer is formed.
2. Crosslink: a constitutional unit connecting two parts of a macromolecule that were earlier separate molecules. Note: a network may be thought to consist of many "primary chains" that are interconnected by a number of crosslinks. In the vast majority of cases, the crosslink is a covalent bond but the term is also used to describe sites of weaker chemical interactions, portions of crystallites, and even physical entanglements.
3. Cross-over concentration: The concentration at which the sum of the volumes of the domains occupied by the solute molecules or particles in solution is approximately equal to the total volume of that solution.
4. Degree of polymerization: the number of monomeric units in a macromolecule or oligomer molecule.
5. depolarization of scatter light: The phenomenon, due primarily to the anisotropy of the polarizability of the scattering medium, resulting from the fact that the electric vectors of the incident and scattered beams are not coplanar and that, therefore, light scattered from a vertically (horizontally) polarized incident beam contains a horizontal (vertical) component.
6. Dilute solution: A solution in which the sum of the volumes of the domains occupied by the solute molecules or particles is substantially less than the total volume of the solution.
7. End-group: a constitutional unit with only one attachment to a chain.
8. Graft polymer: a substance composed of graft macromolecules.
9. Homopolymer: a polymer derived from one species of (real, implicit, or hypothetical) monomer. Note: many polymers are made by mutual reaction of complementary monomers. These monomers can readily be visualized as reacting to give an "implicit monomer", the homopolymerization of which would give the actual product, which can then be regarded as a homopolymer. Example: poly(ethylene terephthalate). Some polymers are obtained by modification of other polymers such that the structure of the macromolecules that constitute the resulting polymer can be thought of as having been formed by homopolymerization of a "hypothetical monomer". These polymers can be regarded as homopolymers. Example: poly(vinyl alcohol).
10. intrinsic viscosity/limiting viscosity number: The limiting value of the reduced viscosity or the inherent viscosity at infinite dilution of the polymer.