

vulcanization

Chemical crosslinking of high-molar-mass linear or branched polymers to give a polymer network.

Notes:

1. The polymer network formed often displays rubber-like elasticity. However, a high concentration of crosslinks can lead to rigid materials.
2. A classic example of vulcanization is the crosslinking of *cis*-polyisoprene through sulfide bridges in the thermal treatment of natural rubber with sulfur or a sulfur-containing compound.

Source:

PAC, 2007, 79, 1801 (*Definitions of terms relating to the structure and processing of sols, gels, networks, and inorganic-organic hybrid materials (IUPAC Recommendations 2007)*) on page 1826