reconstructive transition

A transition which involves a major reorganization of the crystal structure and a change of local topology, during which primary bonds are broken and reformed so that there is no immediate relationship between the crystal structures of the parent and product phases. Examples: The transition of Mg$_2$SiO$_4$ (olivine) to Mg$_2$SiO$_4$ (spinel); the transition of diamond to graphite.

**Source:**
PAC, 1994, 66, 577 (Definitions of terms relating to phase transitions of the solid state (IUPAC Recommendations 1994)) on page 589