

topochemical reaction

A reversible or irreversible reaction that involves the introduction of a guest species into a host structure and that results in significant structural modifications to the host, for example, the breakage of bonds.

Example:

The insertion of lithium at 50 °C into the spinel $\text{Li}[\text{Mn}_2]\text{O}_4$ with symmetry $Fd\bar{3}m$ to yield a layered structure with symmetry $P\bar{3}m1$.



Alternative terms: topotactic reaction, *insertion* reaction.

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