

1.73: Normalizer

Given a group G and one of its supergroups S , they are uniquely related to a third, intermediated group $N_S(G)$, called the **normalizer of G with respect to S** . $N_S(G)$ is defined as the set of all elements $S \in S$ that map G onto itself by conjugation:

$$N_S(G) := \{S \in S \mid S^{-1}GS = G\}$$

The normalizer $N_S(G)$ may coincide either with G or with S or it may be a proper intermediate group. In any case, G is a normal subgroup of its normalizer.

This page titled [1.73: Normalizer](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Online Dictionary of Crystallography](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.