

## 1.27: Crystallographic orbit

---

In mathematics, an *orbit* is a general group-theoretical term describing any set of objects that are mapped onto each other by the action of a group. In crystallography, the concept of orbit is used to indicate a point configuration in association with its generating group.

From any point of the three-dimensional Euclidean space the symmetry operations of a given space group  $G$  generate an infinite set of points, called a **crystallographic orbit**. The space group  $G$  is called the **generating space group** of the orbit. Two crystallographic orbits are said configuration-equivalent if and only if their sets of points are identical.

---

This page titled [1.27: Crystallographic orbit](#) 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.