1.30: Crystal pattern

An object in the n-dimensional point space E^n is called an n-dimensional **crystallographic pattern** or, for short, **crystal pattern** if among its symmetry operations:

1. there are n translations, the translation vectors $\mathbf{t}_1, \ldots , \mathbf{t}_n$ of which are linearly independent;
2. all translation vectors, except the zero vector $\mathbf{0}$, have a length of at least $d > 0$.

When the crystal pattern consists of atoms, it takes the name of **crystal structure**. The crystal pattern is thus the generalization of a crystal structure to any pattern, concrete of abstract, in any dimension, which obeys the conditions of periodicity and discreteness expressed above.