

Dislocation Science



Science

When you first encounter crystal lattice defects, the one-dimensional **dislocations** are the most difficult ones to imagine. True, the ubiquitous schematic picture of an [edge dislocation](#) is not all that hard to grasp, but everything beyond that gets a bit mind boggling at first.

In contrast, all the other defects- vacancies and interstitials, grain boundaries or precipitates - are far easier to imagine. In reality, all defects hang together; they do not exist in splendid isolation. Dislocations and their interaction with all other defects are central to metallurgy and that's why I will devote several modules to this topic.

1. [The Basics](#), including Volterra's knife and a few equations.
2. [The Reality](#). All the rather weird stuff real dislocations do.
3. [Specialties](#). How dislocations reproduce and so on.

You may also want to check these modules

- [History of dislocations](#) Who invented ([or discovered?](#)) dislocations?
[Creep](#) and [Fatigue](#), where creepy or tired dislocations cause big problems.