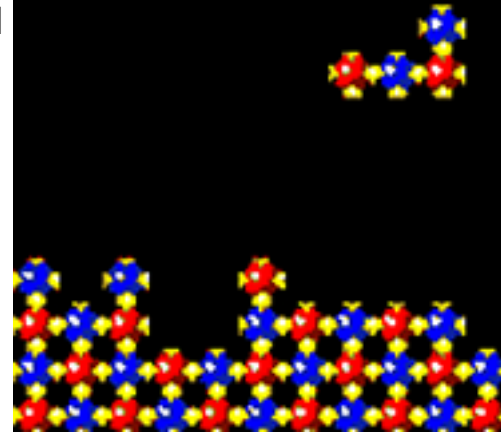


Crystal Tetris®

FOR TEACHING PURPOSES

The growth behaviour of crystals depends on the relative rates of two consecutive steps in the process. One is the flow of growth units toward



the crystal face. The other is the ability of the crystal structure to allocate the landing growth units on the right crystal position, minimizing reticular energy. Using the analogy of building a tessellate wall by a wall-maker and playing the arcade game called Tetris, students can grasp this fundamental idea of the crystal growth theory. For instance, the reluctance of large biological macromolecules such as proteins to crystallize, and the increasing interest in crystal growth techniques where mass transport is controlled by diffusion, are immediately understood. Using these analogies, the teacher can introduce other crystal properties such as polymorphism and mosaicity and discuss how they are related to growth conditions.

This wonderful game help students to understand how crystals grow.

Referencias:

Juan M. García Ruiz, Arcade games for teaching crystal growth. Journal for

Chemical Education 76 (1999) 499-501

You can download it in the follow link:

