



## Why does my chocolate crumble? The “metallurgy” of chocolate making

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**Location:** Fluor Daniel EIB 132

Metallurgy is a branch of materials science and engineering that deals with the physics of metals and their production and properties. Of particular interest in metal processing are solidification and tempering phenomena; the latter involves controlled heating and cooling in order to optimize the metal’s properties. The same is true for chocolate. Tempered dark chocolate has a smooth texture and glossy sheen and exhibits an audible brittle snap. In this seminar, we start by reviewing the fundamental aspects of solidification, i.e., free energies, phase diagrams, and nucleation. Then, chef Grissom will demonstrate using marbling and seeding methods several key concepts involved in chocolate making, highlighting the similarity to metal solidification. The audience will be invited to indulge in the chocolate tempered during the seminar.

