People around the world are fascinated about the preparation of food for eating. There are countless cooking books, TV shows, celebrity chefs and kitchen gadgets that make cooking an enjoyable activity for everyone. The chemistry of cooking course seeks to understand the science behind our most popular meals by studying the behavior of atoms and molecules present in food. This book is intended to give students a basic understanding of the chemistry involved in cooking such as caramelization, Maillard reaction, acid-base reactions, catalysis, and fermentation. Students will be able to use chemistry language to describe the process of cooking, apply chemistry knowledge to solve questions related to food, and ultimately create their own recipes.

• Front Matter

• 1: Thickening and Concentrating Flavors

• 2: Flour
3. Fat

4. Sugar

5. Leavening Agents

6. Dairy Products
7: Eggs

8: Chocolate

9: Spices

Back Matter

Thumbnail: Sugars; clockwise from top-left: White refined, unrefined, brown, unprocessed cane. (Public Domain; Romain Behar).

Contributors and Attributions

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