

Starch Chemistry and Technology 2(2-0)

Theory

Starch: Structure & functionality. Sources: Cereal, root and tuber starches. Starch properties: Physical, functional & thermal properties, viscoamylography, gelatinization, starch swelling, starch pastes, retrogradation and starch films. Modification: Pregelatinization, acid modification, oxidation, cross linking, acetylation, esterification, multiple and genetic modifications. Applications; as an ingredient, in product development. Starch and health; physical performance, nutritional fractions and resistant starches.

Books Recommended

1. Eliasson, A.C. 2004. Starch in food; structure, function and application. Woodhead Pub., Ltd., Cambridge, UK.
2. Geirwyr, S.J. 1995. Analytical chemistry of food. Chapman and Hall, Glasgow, UK.
3. Thomas, D.J. and Atwell, W.A. 1999. Starches. American Association of Cereal Chem. Inc., St. Paul, Minnesota, USA.

Website: www.foodscienceuniverse.com