



ENQ410041 – Advanced Food Technology

Introduction to the advanced and emerging food processing technologies. Thermal technologies. Ohmic heating; Radio frequency; Microwave; Sous vide cooking. Non-thermal technologies. High Hydrostatic Pressure; Radiation; Ultrasounds; Magnetic field; Light pulses. Advanced packaging and preservation systems. MAP; Active packaging; Smart packaging; Edible coatings and films. Technologies for food personalization. Self-assembling process for texture modification; Oleogels and fats structuring; 3D printing.

Bibliografia:

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- Charis Galanakis, Trends in Personalized Nutrition, Academic Press, 2019.
- Da-Wen Sun, Emerging Technologies for Food Processing (Second Edition), Academic Press, 2014.
- Howard Q. Zhang, Gustavo V. Barbosa-Cánovas, V. M. Bala Balasubramaniam, C.Patrick Dunne, Daniel F. Farkas, James T. C. Yuan, Nonthermal Processing Technologies for Food, John Wiley & Sons, 2011.
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