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THERMAL TRANSPORT IN SELECTED FOOD PROCESSING OPERATIONS

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ABSTRACT

Many food processing operations involve application of heat to process foods for making them safer to consume or to impart specific organoleptic attributes such as color, flavor, etc. This presentation will give an overview of the current state of knowledge of thermal transport in selected food processing operations such as batch and continuous microwave processing, hybrid jet impingement-microwave baking, ohmic heating, aseptic processing, extrusion, and high pressure processing. Results obtained from mathematical models and numerical simulations, including their limitations and experimental challenges will be discussed.