

Title Current advances in superheated-steam drying and processing
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Abstract

Purpose of the review: This article summarises progress in research on drying and processing with superheated (SS) steam over the last six years, highlighting the current status of mathematical modelling used in SS drying of timber, fluidised drying, impingement drying and flash drying.

Findings: A new advance in mathematical modelling of SS drying is the inclusion of the initial condensation on a product surface in models. Several studies show that SS is used for simultaneous drying and processing of food products where the food quality aspect is a primary issue.

Directions for future research: The quality aspects of products dried or processed with SS need to be investigated and addressed in more systematic studies. There are also challenges associated with complex laboratory equipment, appropriate instrumentation of equipment, and with results that can be duplicated and confirmed in other centres for the purpose of scaling-up SS processing units.