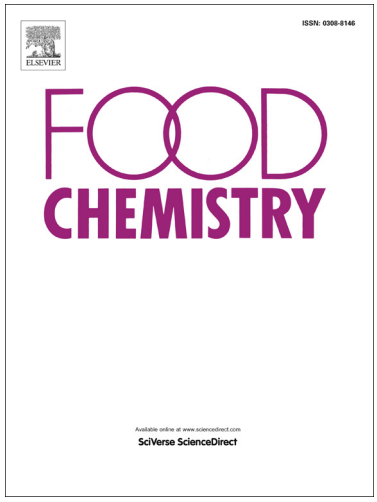

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Protein-transitions in and out of the dough matrix in wheat flour mixing

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Abstract:

Sequential protein behavior in the wheat dough matrix under continuous mixing and heating treatment used Mixolab-dough samples from two Australian wheat cultivars, Westonia and Wyalkatchem. High performance liquid chromatography (SE-HPLC) and two-dimensional gel electrophoresis (2-DGE) analysis indicated that 32 min (80 ℃) was a critical time point in forming large protein complexes and loosing extractability of several protein groups like y-type high molecular weight glutenin subunits (HMW-GSs), gamma-gliadins, beta-amylases, serpins, and metabolic proteins with higher mass. Up to 32 min (80 ℃) Westonia showed higher protein extractability compared to Wyalkatchem although it was in the opposite

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