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How high pressure pre-treatments affect the function and structure of hen egg-white lysozyme

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Abstract

A comparative study between high pressure homogenization (HPH, 40-120 MPa) and high pressure processing (HPP, 300-600 MPa) with respect to their effects on lysozyme structure and functionality was carried out. The results showed that high pressure processing induced: (i) activity increase in the presence of NaCl (≤ 0.6 M), especially for samples processed by HPH (up to 6 times at pH 4.5), (ii) thermal resistance reduction up to 34 and 40% for HPP and HPH, respectively, (iii) higher resistance to low pH, with consequent activity