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pH和金属离子对大豆分离蛋白凝胶形成的作用

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摘要: 在90℃条件下, 研究了大豆分离蛋白浓度、pH值、金属离子、加热时间等因素对大豆分离蛋白凝胶形成的作用。结果显示, 酸性条件下大豆分离蛋白形成凝胶的最适pH为3.0, 碱性条件下形成凝胶的最适pH为9.0, pH大于11在95℃的水浴锅中加热5min, 大豆分离蛋白变为黄棕色粘稠状液体, 且有异味; 凝胶溶液中CaCl₂浓度为0.4%时, 形成凝胶的透明性最高, 时间为22min。

Abstract: Effects of soybean protein isolate concentration, pH, metal ions and heating time on gelatin formation were studied at 90°C. The results showed that the optimal pH for gelatin formation were respectively 3.0, and 9.0 at acidity and alkalinity, gel turned dense liquid, brown color and flavor when pH was higher than 11 at temperature of 95°C for 5min. The highest transparency gel was produced when the concentration of CaCl₂ was 0.4% for 22 min.

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