全子叶豆腐凝胶性质研究 Gelatin Properties of Okara-containing Tofu

芦鑫 程永强 李里特

中国农业大学

关键词： 全子叶豆腐 色差 质构分析 微观结构 持水能力

摘 要： 以CaCl2凝固豆腐为对照，研究全子叶豆腐在组成成分、色泽、质构、微观结构以及持水能力上的差异。结果表明：在色泽上，二者色差为3.76，可肉眼辨别差异，全子叶豆腐亮度上暗于普通豆腐；全子叶豆腐中，大豆多糖和纤维素的存在，提高了豆腐的产率和持水能力，并降低了对CaCl2浓度变化的敏感性；由于多糖和蛋白相互作用，在扫描电镜中，普通CaCl2豆腐有精细有序的网络结构，而全子叶豆腐呈现杂乱块状结构；由于多糖阻碍蛋白有序结构的形成，弱化了凝胶的强度，使全子叶豆腐在硬度、弹性和咀嚼性上要弱于普通CaCl2豆腐。 Compared with tofu gelating by CaCl2, the differences between okara-containing tofu and control tofu in composing component, color, texture, microstructure and water holding capacity (WHC) was analyzed. The results show that their color difference is 3.76, which could be discriminated by naked eyes. Okara-containing tofu is darker than control. Because of soybean polysaccharide and cellulose, okara-containing tofu has the higher yield and WHC than control, and the effect of CaCl2 concentration decreases on okara-containing tofu. Due to the interaction of polysaccharide and protein, the okara-containing tofu is in chaos of block microstructure, while the control has an ordered and refined networks structure in SEM. Because polysaccharide interferes with the formation of protein networks, which weakens the gel strength, the okara-containing tofu has the lower value than control in the hardness, springiness and chewiness.

查看全文（请使用Adobe Acrobat 6.0版本浏览） 返回首页 引用本文