芝麻分离蛋白对牛乳微观形态及干酪DSC特性的影响　Effects of Sesame Protein Isolate on DSC of Curd and Microstructural Properties of Cheese Milk

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关键词：　干酪 芝麻分离蛋白 差示扫描量热法 微观结构

摘　要：　为研究芝麻分离蛋白对干酪体系的修饰作用，对芝麻分离蛋白部分替代乳蛋白对干酪用乳微观结构和凝块热力学特性的影响进行分析。以芝麻蛋白占混合乳中总蛋白含量的0、4%、8%和12%制作4种干酪进行分析研究。结果表明，芝麻分离蛋白添加后引起乳脂分散，乳脂肪球变小，表现出芝麻蛋白的乳化均质作用。DSC分析显示其凝块热力学特性受芝麻分离蛋白浓度影响显著，凝块出现新的热吸收峰，且峰值温度发生变化。同时结合已有报道对芝麻分离蛋白与酪蛋白相互作用方式进行了探讨，结果表明，芝麻分离蛋白与酪蛋白发生共沉淀，对干酪凝块起到特性修饰作用。　To study the influence of sesame protein isolate on cheese system, the characteristics of microstructure and thermal properties of cheese contained sesame protein isolate were investigated. Cheeses made from mixture milk with 0, 4%, 8%, 12% protein substituted by sesame protein isolates in total milk protein were prepared. Adding sesame protein isolate in cow milk resulted fat globular smaller and more regular, showed the emulsifying and homogeneous properties of sesame protein isolate. DSC analysis showed the thermodynamic properties were influenced by sesame protein isolate, one new absorption peak was detected and the peak temperature varied with sesame protein isolate content. The interact mode of sesame protein isolate and casein based on the present results were discussed and the research results were published.

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