remarkable inhibitory zone of microbial growth on the microbial media. GSE showed good stability against temperature and pH in the range of 40~150℃ and 4~11,This may indicate that GSE can be a potential anti-microbial agent for industrial application. In addition, SEM of Listeria monocytogenes suggests thatits antimicrobial components would perturb the fucntions of microbial cell membranes synergistically. whereas had limited effect on Escherichia coli.

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Physical Powder Characteristics of Green Tea, Albumin and Skim milk as a Function of Water Activity

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Powder characteristics of green tea, albumin and skim milk as a function of water activity (a_w) were investigated by the measurement of caking behavior, solubility, moisture sorption properties and tapping test. The powders equilibrated at various water activity ranged from 0 to 0.93 over saturated salt solutions and moisture sorption isotherm were determined. The powder equilibrated at a_w=0 showedthe highest solubility in pH 7 buffer solution and lowest change in volume by tapping. This may indicate that the powder equilibrated at a_w=0 had highest physically stable structure among samples. The moisture content of the powders occurred at a_w>0.53and pronounced with increasing water activity. The caking phenomenon of the powders for showing highest physical stability, which was corresponding to a_w=0, was about 1~3%.