〈シンポジウム〉

グリチルリチンの乳化作用とその乳濁液の安定性

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Emulsifying Ability of Glycyrrhizin and Stability of the Emulsions

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Abstract

Emulsions of a relatively small amount of oleic acid and oleyl alcohol in aqueous glycyrrhizin (GA) solution were investigated by means of turbidity measurement. The emulsifying power of GA, which was defined as the change of turbidity per unit volume of oleic acid emulsified, was enhanced with rising pH. The dissociation of both GA and oleic acid was considered to play an important role in the emulsification of the system.

The stability of oleic acid/water emulsions in centrifugal fields was also examined. The rate of a decrease in turbidity showed maximum at a certain size of the initial particle. This results may be due to the following two effects which counteract each other: (a) the larger the particle diameter the higher the adsorption density of GA on the surface of particles and mechanically stronger the surface film, and (b) the stress of impact increases with increasing particle size.