

## Preparation and characterization of alginate-carrageenan microcapsule by emulsification gelation method

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### Abstract

Sodium alginate and k-carrageenan are natural polymers without toxicity, which are biodegradable and biocompatible.<sup>1)</sup> The preparation of alginate-carrageenan blend microcapsule by an emulsification-gelation method was optimized for blend polymer ratio, water sorption capability, pH, core-wall materials ratio, and crosslinking agent concentration.<sup>2~3)</sup> The aim of this work was to produce microcapsules and find out a relationship between release rate and capsule pore size. Microcapsules were characterized using swelling measurement, scanning electron microscopy, and durability testing. Various molecular weight dextrans were used as the model core material to investigate loading capacity of core materials and release characteristics of the microcapsules. Optimum conditions of carrageenan concentration in the blend film and crosslinking agent were investigated.

### References

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