

[Anal. Sci., 7, 205-208 (1991)]

[Lab. of Pharm. Analytical Chemistry]

Separation Characteristics of Whale Myoglobin by Chromatofocusing and Size Exclusion Chromatography with Aid of a Photodiode Array Detector.

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Separation of sperm whale myoglobin (Mb) was studied by chromatofocusing (CF) and size Exclusion chromatography (SEC). At least 9 peaks were observed in the CF chromatogram. This suggests the existence of 9 different components with different isoelectric points (pI). On the other hand, all these components gave the same elution time with each other in SEC, when each peak fraction separated by CF was injected. Thus the separation characteristics in CF were investigated with aid of a photodiode array detector to elucidate the separated components. Additionally pI values of the 9 components were estimated by CF.

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[Lab. of Pharm. Engineering]

Formation and Structure of Stably Dispersed Small Particles Composed of Phosphatidylcholine and Ubiquinone-10: Coexistence of Emulsion Particles with Bilayer Vesicles.TETSURO HANDA, YASUYUKI ASAI, KOICHIRO MIYAJIMA, YOSHIAKI KAWASHIMA*,
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Stable aqueous dispersions of ubiquinone-10 (Q₁₀) were produced by cosonication with egg yolk phosphatidylcholine (PC) in a Q₁₀ mole fraction range of lipid mixture of 0.1-0.7. Electron microscopic and dynamic light scattering measurements showed the diameter of the dispersed particles to be 65-75 nm. The trapped aqueous volume inside the particles was determined fluorometrically with an aqueous space marker, calcein. Trapped volume decreased remarkably with the addition of Q₁₀ into small unilamellar vesicles of PC.

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[Lab. of Pharm. Engineering]

Characterization of Polymorphs of Tranilast Anhydrate and Tranilast Monohydrate When Crystallized by Two Solvent Change Spherical Crystallization Techniques.YOSHIAKI KAWASHIMA*, TOSHIYUKI NIWA, HIROFUMI TAKEUCHI,
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Spherically agglomerated crystals of tranilast (oral antiallergic agent) with improved availability in vitro, as well as improved micromeritic properties such as flowability and packability, were prepared by a novel spherical crystallization technique. The agglomerates of tranilast were found to be composed of new monohydrate I, II, or III, depending on the crystallization solvent and the procedure employed.