



# Interactions between poly(ethylene glycol) and protein in dichloromethane/water emulsions: A study of interfacial properties

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From adsorption kinetics and interfacial rheological studies performed by using a pendant-drop method, i.e. in conditions close to those of the primary emulsion of the water-in-oil-in-water emulsion-encapsulation technique, it was shown that adsorption of the hen egg-white lysozyme (HEWL) at the water/dichloromethane (DCM) interface can be efficiently slowed down by modulating some parameters. It was shown that a decrease of the ionic strength of the aqueous phase, and the optimization of the density of the poly(ethylene glycol) (PEG) adsorbed film by increasing the PEG concentration or by modulating the polymer chain length, can significantly decrease the rate of adsorption of HEWL at the water/DCM interface. Moreover, it was shown that the choice of the dissolution phase of PEG (DCM or water) clearly influences the results.

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## Liens

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[2] <http://okina.univ-angers.fr/j.benoit/publications>

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