

INTERFACIAL POLYMERIZATION AS A TOOL TO MICROENCAPSULATE HIGHLY REACTIVE INGREDIENTS

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ABSTRACT

The microencapsulation approach already described by White et al is amongst the most studied self-healing concepts in recent years. Microcapsules represent reservoirs of healing agents which are dispersed into materials. Deterioration and weakening of materials lead to the formation of cracks and microcapsules present in the matrix should break (and not debond). Releasing their reactive liquid content, they allow the material to recover its strength [1].

In this project, different synthetic routes for the formation of core-shell structures, well-known in the literature, are applied and adapted to our targeted systems. Emulsification of the active agent into an immiscible phase is realized upon mechanical stirring and shell formation is typically performed by interfacial polymerization of monomers that are present separately in one of the liquid phases.

REFERENCES

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