



Activated Release Of Target Material Trapped In Anisotropic Fluids

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The Invention

Systems and methods for the controlled release of a guest composition that is sequestered within a host composition made up of an anisotropic fluid are disclosed. The guest composition is immiscible in the host composition, thus forming an interface between the compositions upon which elastic repulsion forces act to prevent the release of the guest composition from the host composition. The disclosed systems and methods work by changing the elastic repulsion forces and/or introducing one or more counter forces such that the elastic repulsion forces are no longer sufficient to prevent release of the guest composition. Exemplary methods include mechanically changing the host material (e.g., changing its temperature) or inducing a chemical (e.g., electrostatic) attraction sufficient to overcome the elastic repulsion forces. The disclosed systems and methods can be used for a variety of applications requiring “on-demand” delivery of a chemical composition.

Tech Fields

- [Materials & Chemicals : Synthesis](#)

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