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Superstabilization of emulsions by solid particles

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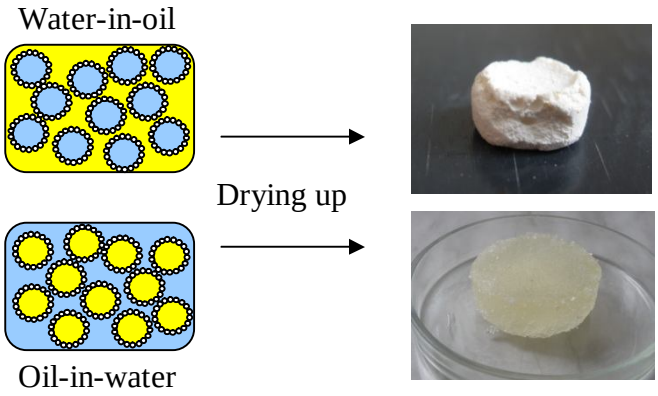
Graphical abstract



Highlights

- Organo-modified silica powder was used as solid emulsifier for both emulsion types.
- Emulsions stabilized by hexylamine-modified silica were stable for up to one year.
- Emulsions were dried without destroying the three-dimensional solid network.
- Solid porous material was formed from the reverse emulsion as a result of drying.
- The inter-droplet phase evaporated, and the droplets remained in the direct emulsion.