Ciclo di incontri – Tavolo di discussione

CRYSTALLITE SIZE:

TAILORING INTRUSION-EXTRUSION SYSTEMS FOR APPLICATION

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The behaviour of Heterogeneous Lyophobic Systems (HLSs) comprised of a lyophobic porous material and a corresponding non-wetting liquid is a□ected by a variety of di□erent structural parameters of the porous material. Dependence on an exogeneous property such as crystallite size is desirable for system tuning, as it is easily modified. We explore the dependence of intrusion/extrusion pressures and intruded volume on crystallite size, testing the hypothesis that the connection between internal cavities and bulk water facilitates intrusion via hydrogen bonding, a phenomenon that is magnified in smaller crystallites with a larger surface/volume ratio.1
In addition, other properties are explored: flexibility, negative compressibility,2 heat of intrusionextrusion, 3,4 and finally contact electrification,5 a concept which is at the heart of the ElectroIntrusion project.

References
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