

"Patchy" Particles

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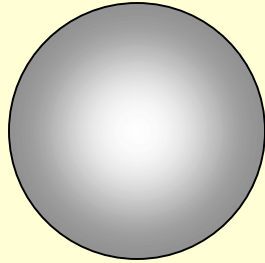
ACS Fall Meeting 2009

Division of Colloid Science & Surface
Chemistry

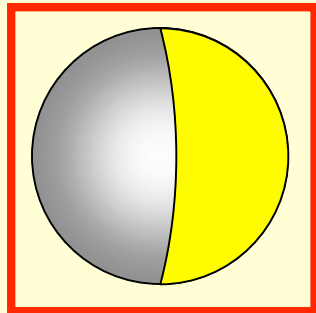
08/19/09



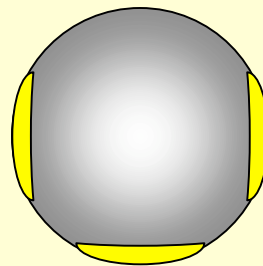
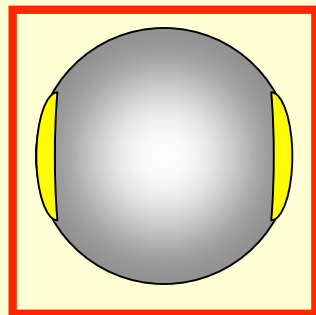
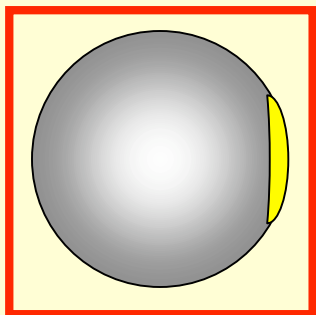
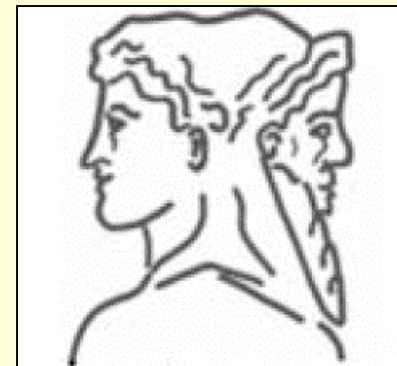
Nomenclature - Patchy Particles



spherical particle – highly symmetric



Janus particle – less symmetry



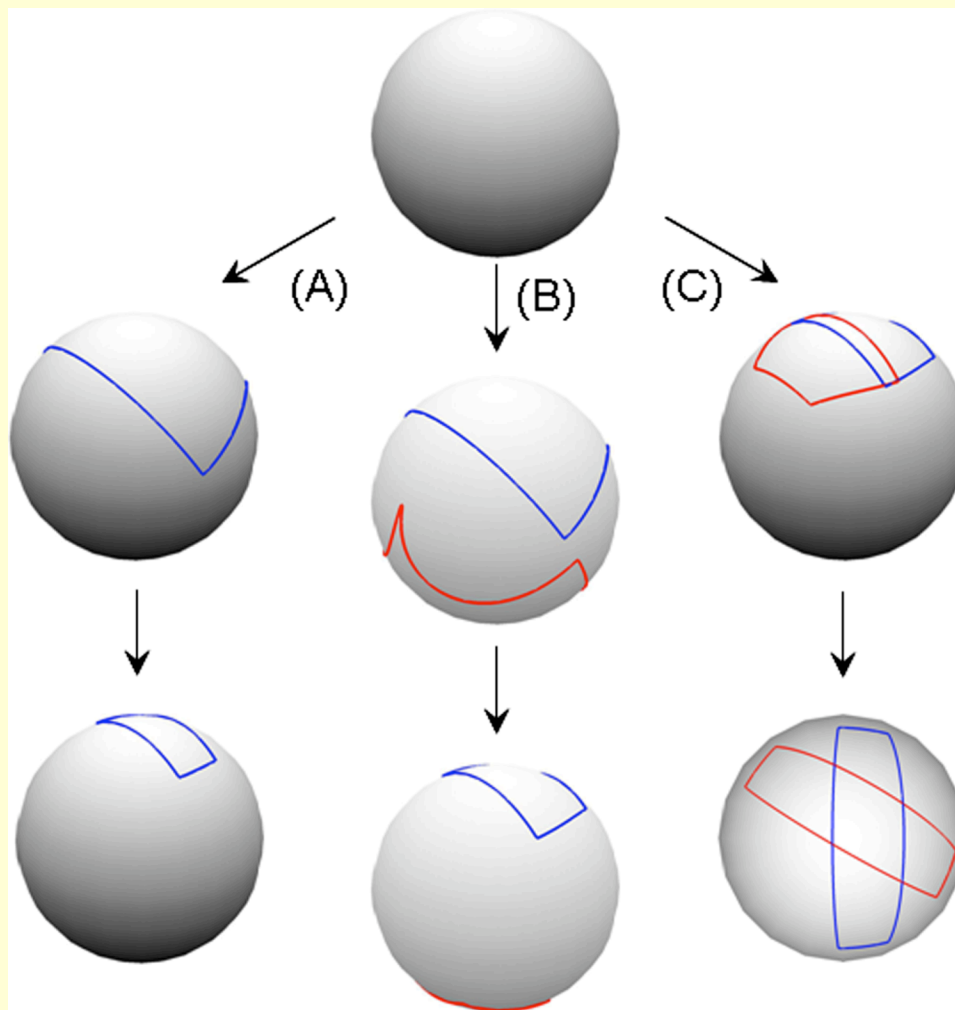
patchy particles – functionality

Surface Coverage, A

Branching, E

S. Glotzer, M.J. Solomon *Nature Mat.* 2007.

Patchy Particles Accessible with GLAD

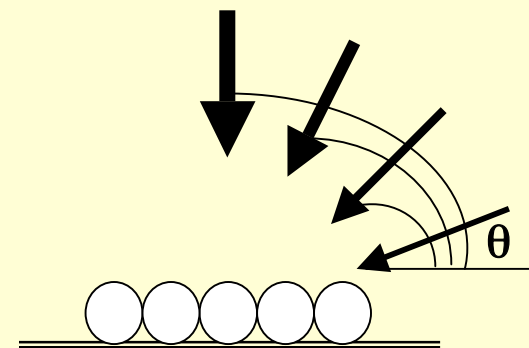
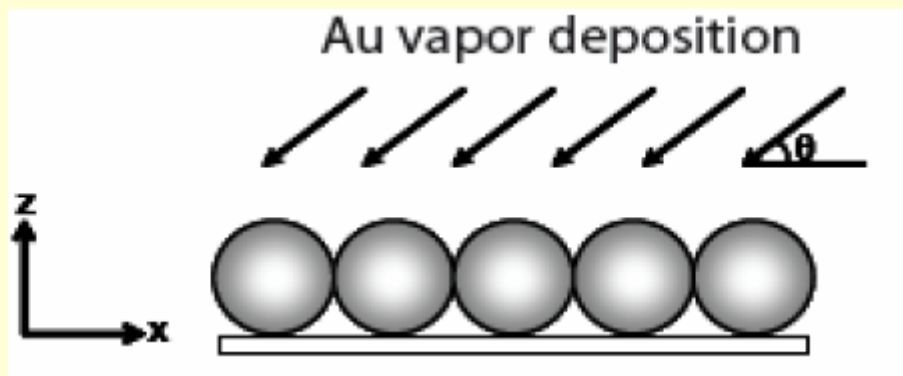


A. B. Pawar, I. Kretzschmar *Langmuir* **2009**, *25*, 9057.

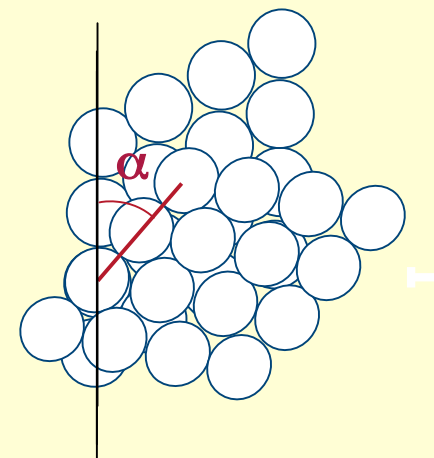
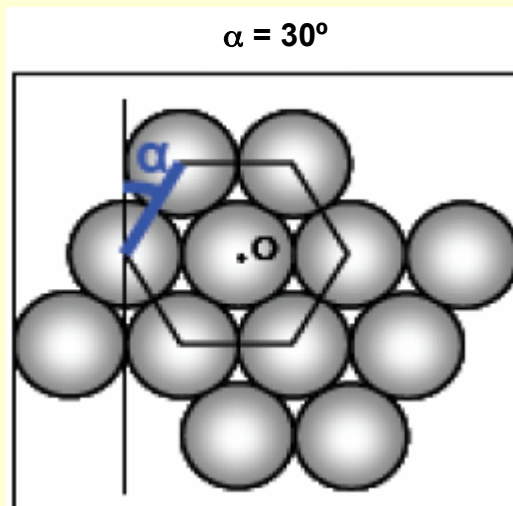
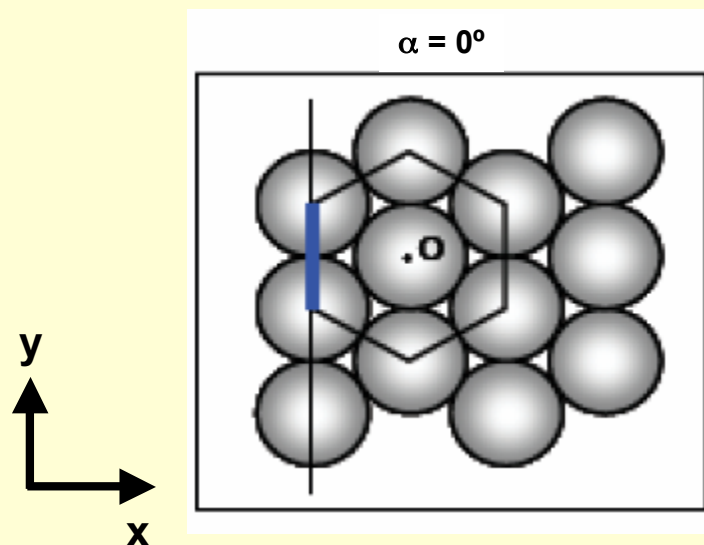
A. B. Pawar, I. Kretzschmar *Langmuir* **2008**, *24*, 355.

Important Angles in GLAD

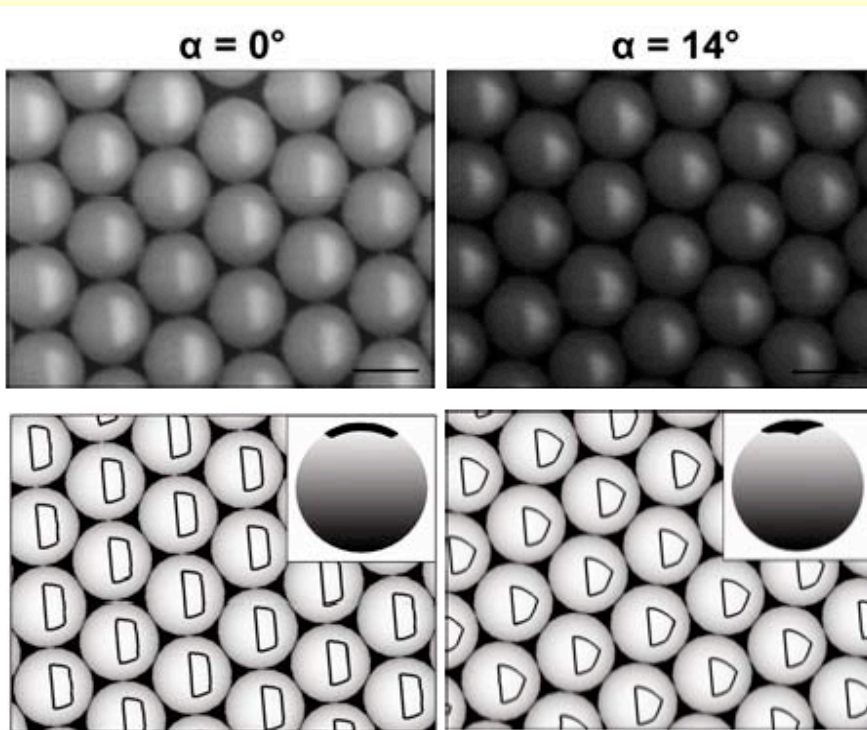
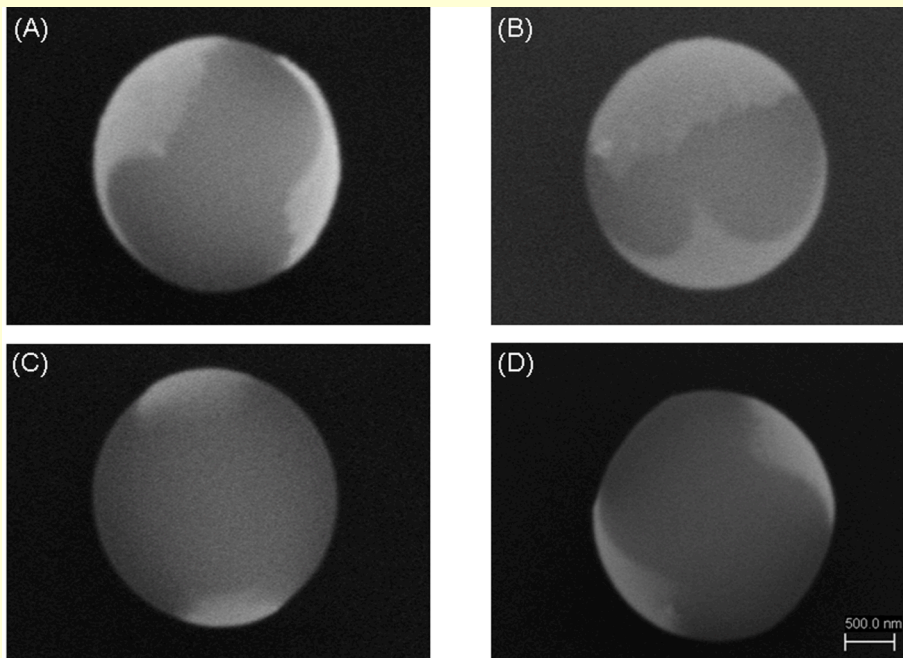
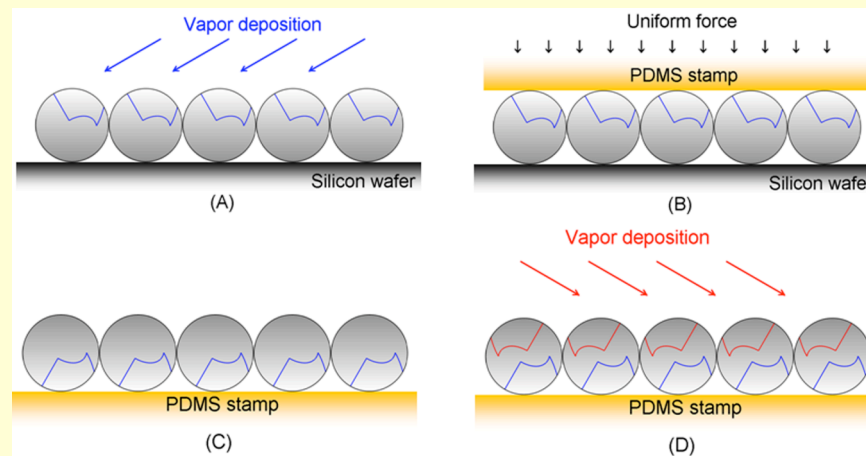
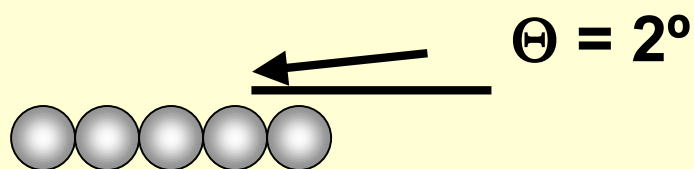
Angle of Incidence, Θ



Orientation of Monolayer, α



One and Two-Patch Patchy Particles



A. B. Pawar et al. *Langmuir* **2008**, *24*, 355.

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