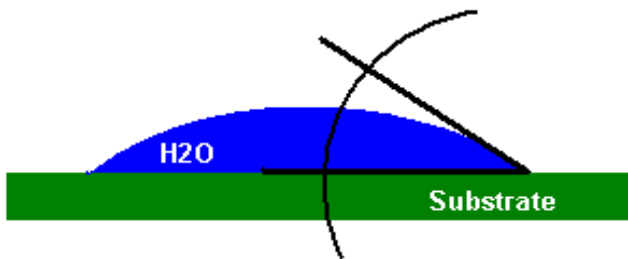


SENIC—Nanoscale Science and Engineering Exploring Hydrophobic Materials

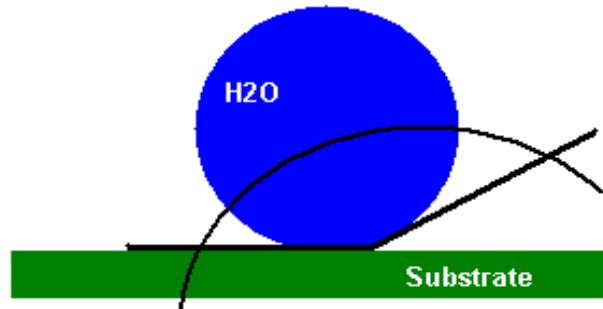
Hydrophobic and hydrophilic are determined by surface contact geometry or angle as shown below:

Hydrophilic



Contact Angle < 90 Degrees

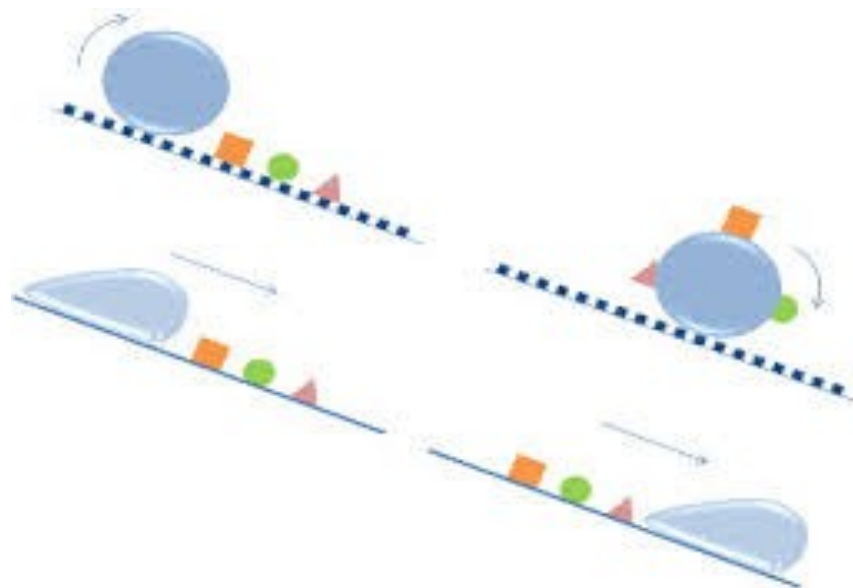
Hydrophobic



Contact Angle > 90 Degrees

Hydrophobicity is used to prevent water from collecting on a surface

- The water is attracted more to itself than the surface because the surface tension force is greater than the gravitational force.



Superhydrophobic
- dirt adheres
loosely to surface
and is picked up.

Hydrophilic—
water partly wets
the surface and
spreads out leav-
ing most dirt on.

Image at: http://nanoyou.eu/attachments/188_Module-1-chapter-2-proofread.pdf
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