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**Considering Hydrophobicity via Contact Angle Stability of Organic Thiols Measured with a Homemade Goniometer** MARK SERALY, BROOKE OLLANDER, ARIEL STATMAN, ADELE POYNOR, Allegheny College — When water meets an extended hydrophobic surface, an ultra-thin, low-density depletion layer is expected at the interface. Exactly how the depletion layer changes with change in hydrophobicity is still an open question. An accurate measure of contact angle is essential in determining how water meets a hydrophobic surface. Utilizing a homemade goniometer with ImageJ software we investigate the stability of self-assembled organic thiol monolayers, 1-octadecanethiol (ODT) and 11-mercaptopundecanoic acid (MUA). We report the changes in contact angle due to exposure to air, water, and ethanol. Other factors that affect contact angles were also considered in our investigation.

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