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Measurement of Contact Angle, Surface Free Energy and Wettability on a Collection of Glassy Substrates ABIGAIL RIORDAN, INDRAJITH SENEVIRATHNE, Department of Geology Physics Lock Haven University, Lock Haven, PA17745 — Glasses are ubiquitous in industry. Many desirable qualities enable engineers to utilize glasses as components of multitudes of systems and devices. Here we have systematically investigated several different types of commercially available glasses in-terms of their surface properties and reactivity. Measurements were done on a home built contact angle setup. Temperature and relative humidity were measured in tandem. Surface free energy measurements were systematically done using DI water with surface tension of 72 mJ/m^2 droplets. Micropipette with 2 - 20microliter droplet size was set for the measurements. Contact angle hysteresis (H) was also measured in order to assess the values with their variations. Surface roughness and structure of the glass samples were recorded via an Atomic Force Microscope (AFM).

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