

Technical Assistance Request

Our team will be seeking systems for testing and creating lab-scale photovoltaic windows. Many are readily available within the American-Made Network, particularly NREL:

- Current-voltage characterization: PCE, short circuit current, open circuit voltage, stabilized power output
- ASTM standard IGU testing for durability of high performance windows and dynamic glass (ASTM E2190-19 and ASTM 2141-14)
- Vapor and wet film deposition systems
- Spectral measurements of haze and transmission as a function temperature, wavelength, and angle

A known custom setup is housed at NREL that carries out many of the necessary measurements is shown in Figure 1.

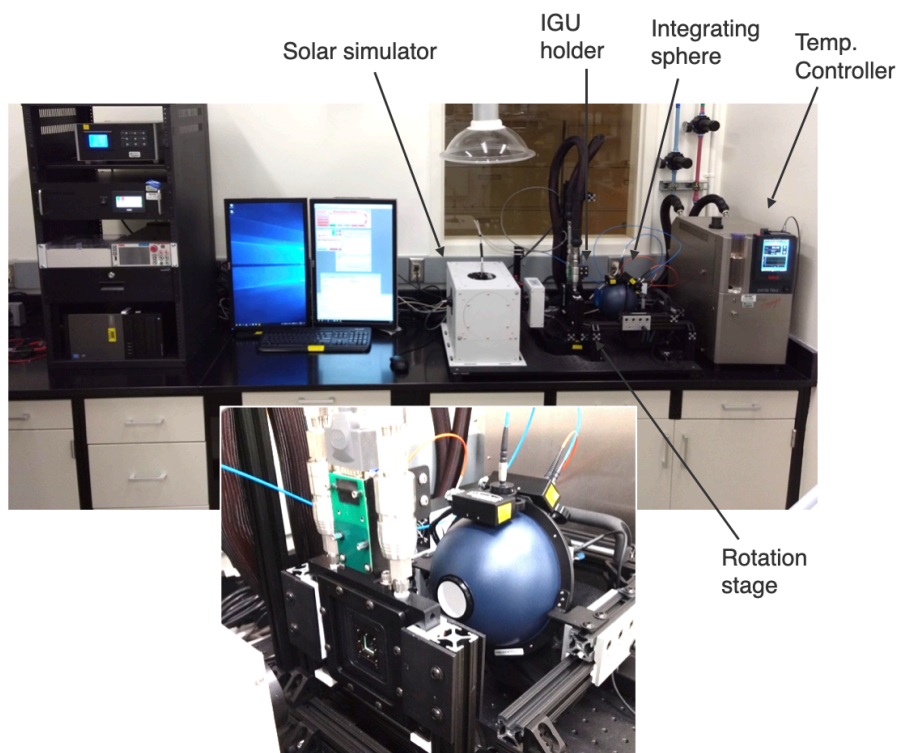


Figure 1: custom PV window characterization system at NREL

Further, we seek the knowledge and capabilities to adapt currently used wet film deposition techniques for perovskite films to the large-area vapor-deposition-based techniques used in the glazing industry. We are not aware of this capability within the American-Made Network and would like identify any possible partners in this endeavor.