



Figure 6. Sensor calibrations for three soil substrates. Calculated gravimetric water content (GWC) percentages, determined by measuring soil mass during substrate dry-down, are compared with soil sensor resistance values from the probes (measured in Siemens). Data shown are for two samples each of three distinct soil substrates. Soil substrates were (a) a silt loam soil, (b) a moss biocrust, and (c) a loamy sand soil. (a) The relationship of GWC and resistances in predominantly silt loam soils was best represented by a power regression. (b) A strong linear relationship of GWC and sensor resistance was observed for biocrusts dominated by the moss *Syntrichia caninervis*. (c) A linear regression best represented the relationship between GWC and sensor resistance measurements in loamy sand soils. At high GWC values the resistances diverge from the calibration curve, indicating a potential limitation of these sensors.