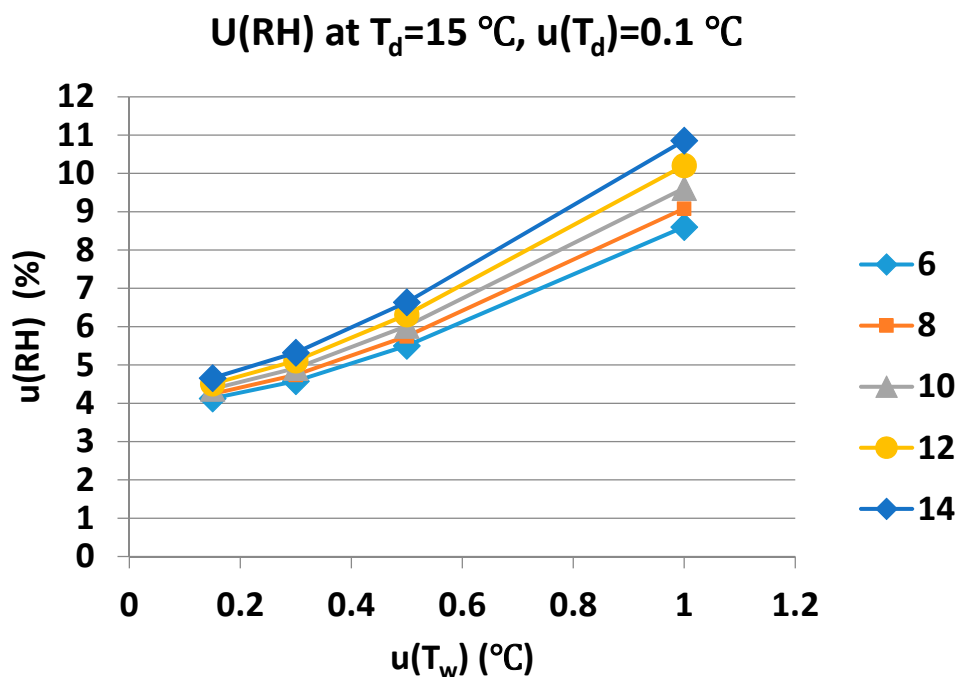


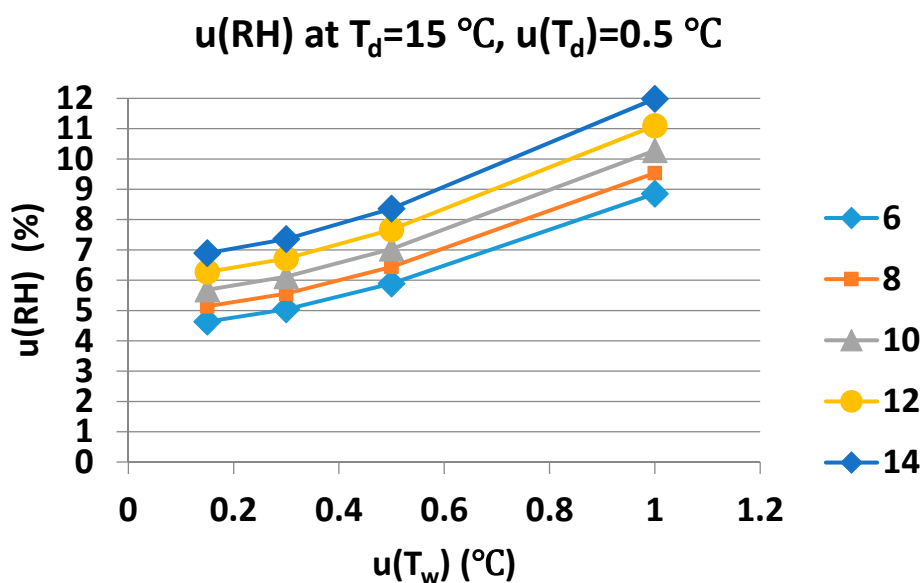
# Supplementary Materials: Uncertainty Analysis in Humidity Measurement by the Psychrometer Method

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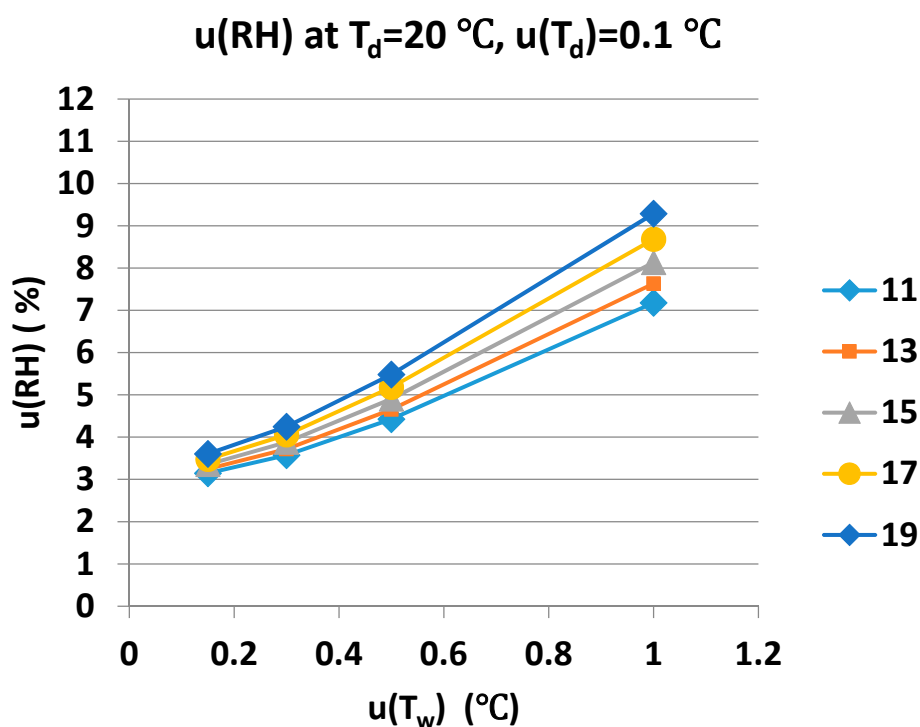
Supplement figures legends



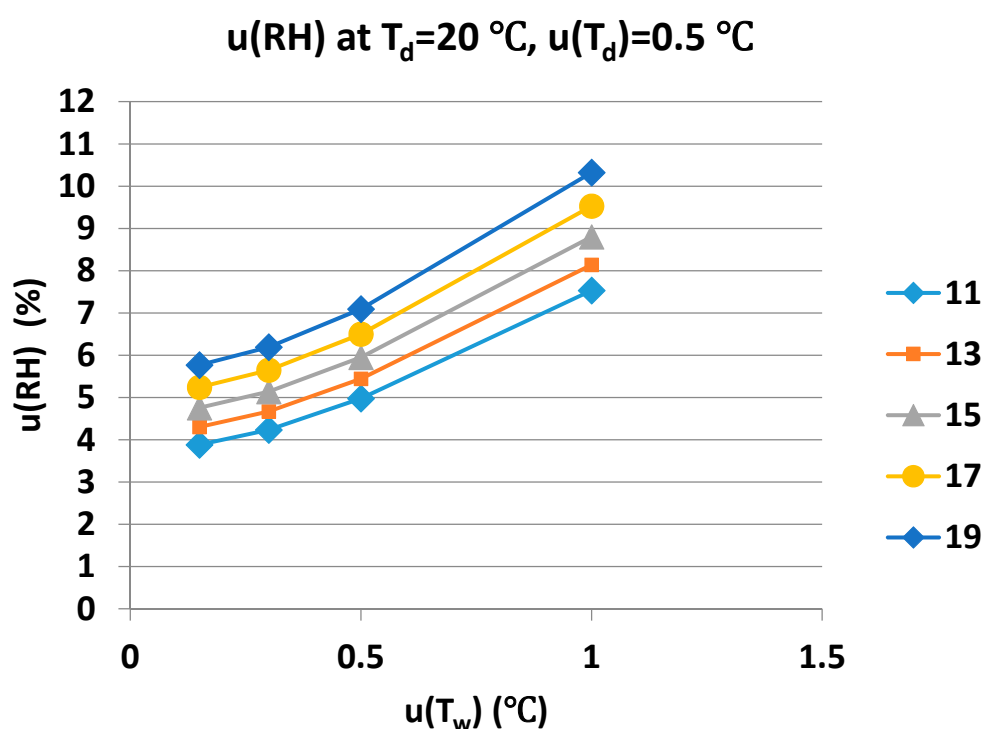
**Figure S1.** Uncertainties of relative humidity calculated with Equation (15) at  $T_d = 15\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.10\text{ }^{\circ}\text{C}$ ,  $T_w = 6\sim 14\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



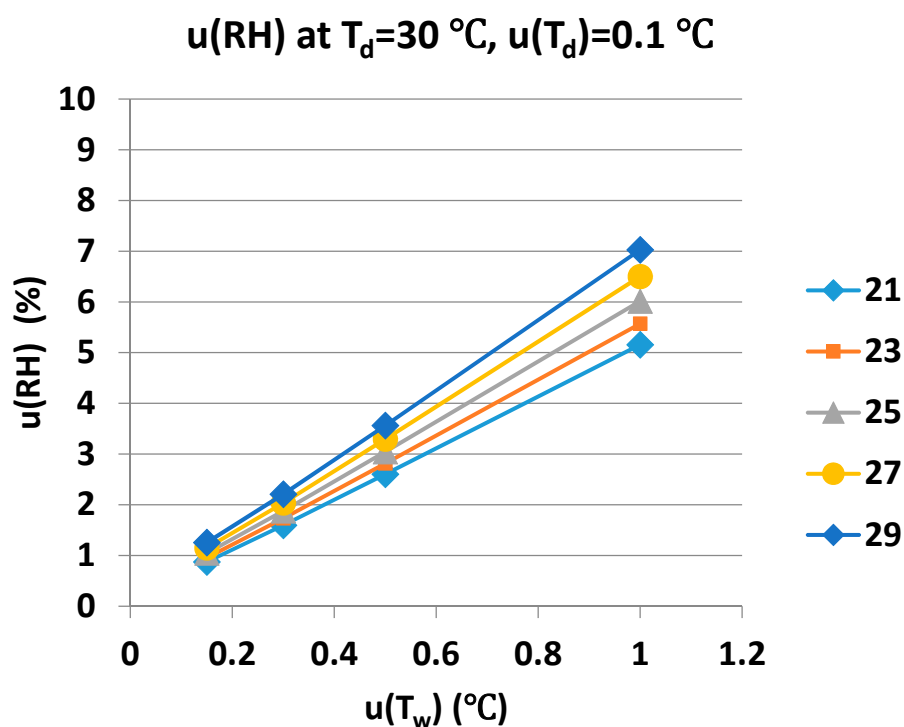
**Figure S2.** Uncertainties of relative humidity calculated with Equation (15) at  $T_d = 15\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.50\text{ }^{\circ}\text{C}$ ,  $T_w = 6\sim 14\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



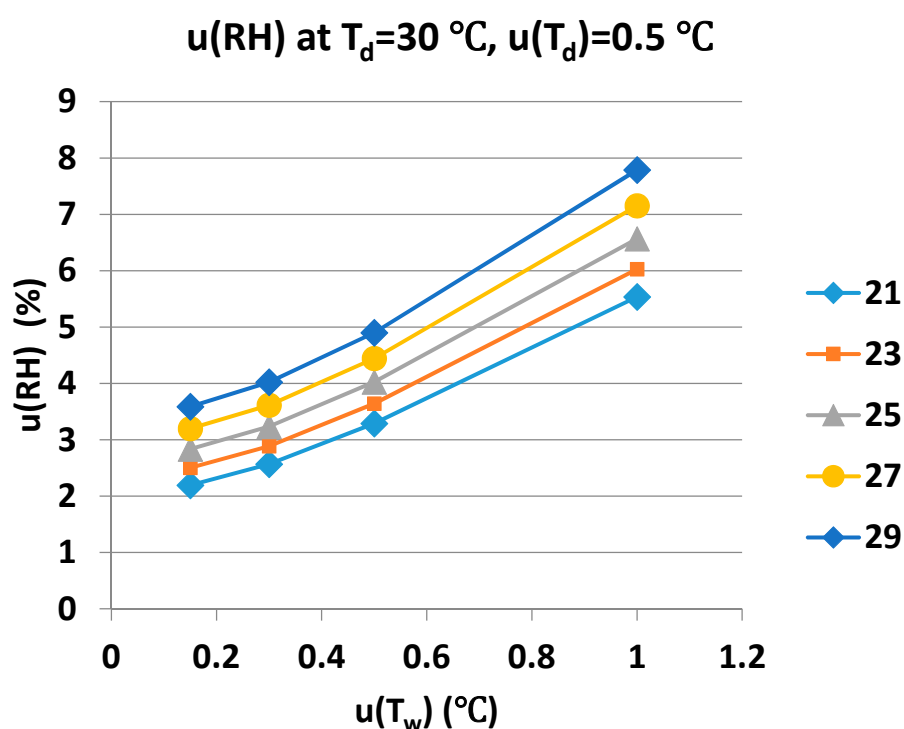
**Figure S3.** Uncertainties of relative humidity calculated with Equation (15) at  $T_d = 20\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.10\text{ }^{\circ}\text{C}$ ,  $T_w = 11\sim 19\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



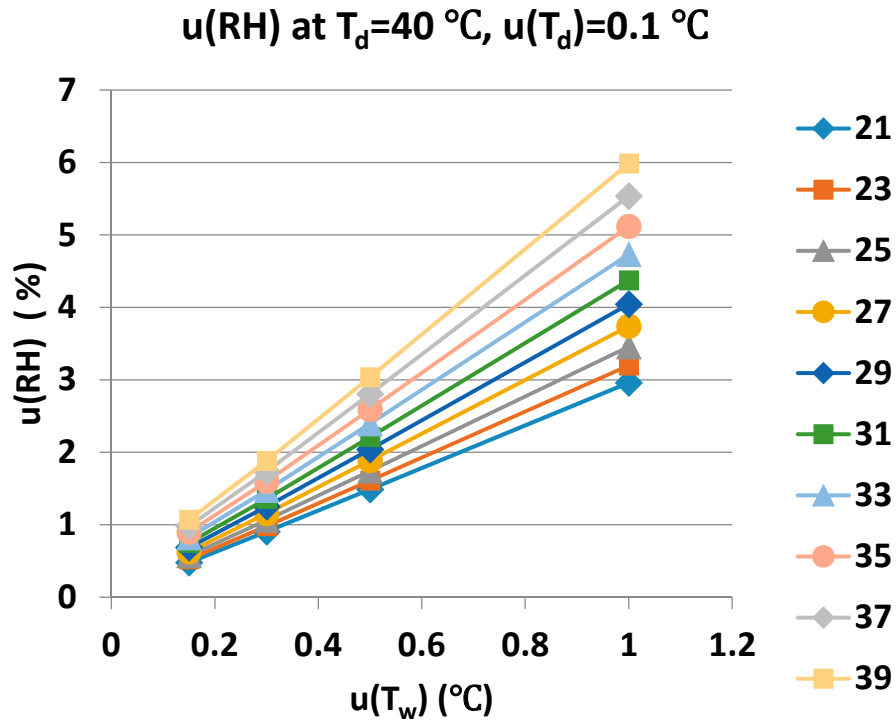
**Figure S4.** Uncertainties of relative humidity calculated with Equation (15) at  $T_d = 20\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.50\text{ }^{\circ}\text{C}$ ,  $T_w = 11\sim 19\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



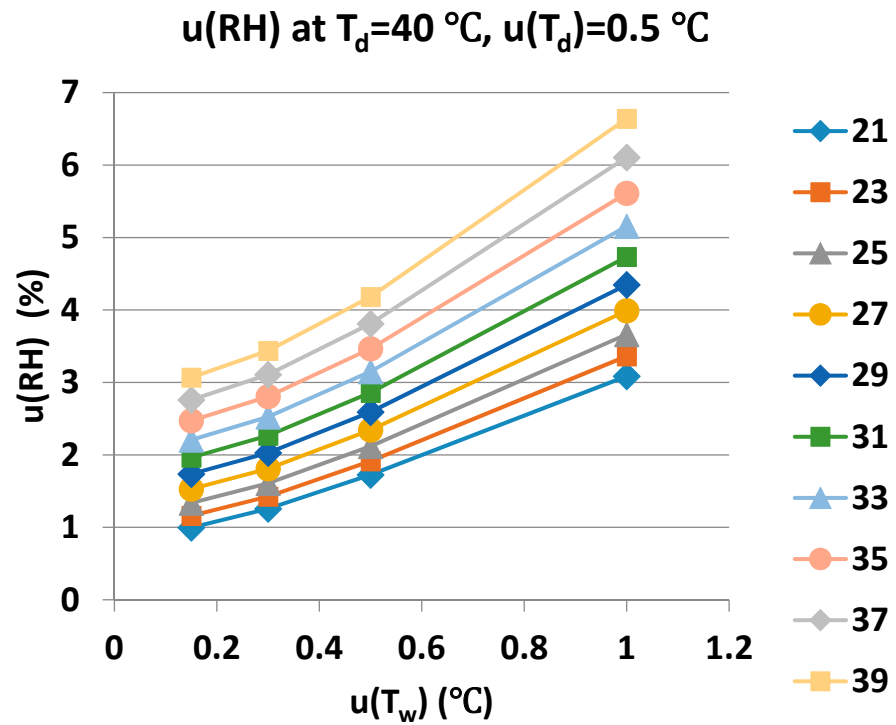
**Figure S5.** Uncertainties of relative humidity calculated with Equation (16) at  $T_d = 30\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.10\text{ }^{\circ}\text{C}$ ,  $T_w = 21\sim 29\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



**Figure S6.** Uncertainties of relative humidity calculated with Equation (16) at  $T_d = 30\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.50\text{ }^{\circ}\text{C}$ ,  $T_w = 21\sim 29\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



**Figure S7.** Uncertainties of relative humidity calculated with Equation (16) at  $T_d = 40\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.10\text{ }^{\circ}\text{C}$ ,  $T_w = 21\sim 39\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .



**Figure S8.** Uncertainties of relative humidity calculated with Equation (16) at  $T_d = 40\text{ }^{\circ}\text{C}$ ,  $u(T_d) = 0.50\text{ }^{\circ}\text{C}$ ,  $T_w = 21\sim 39\text{ }^{\circ}\text{C}$  and  $u(T_w) = 0.1\sim 1\text{ }^{\circ}\text{C}$ .