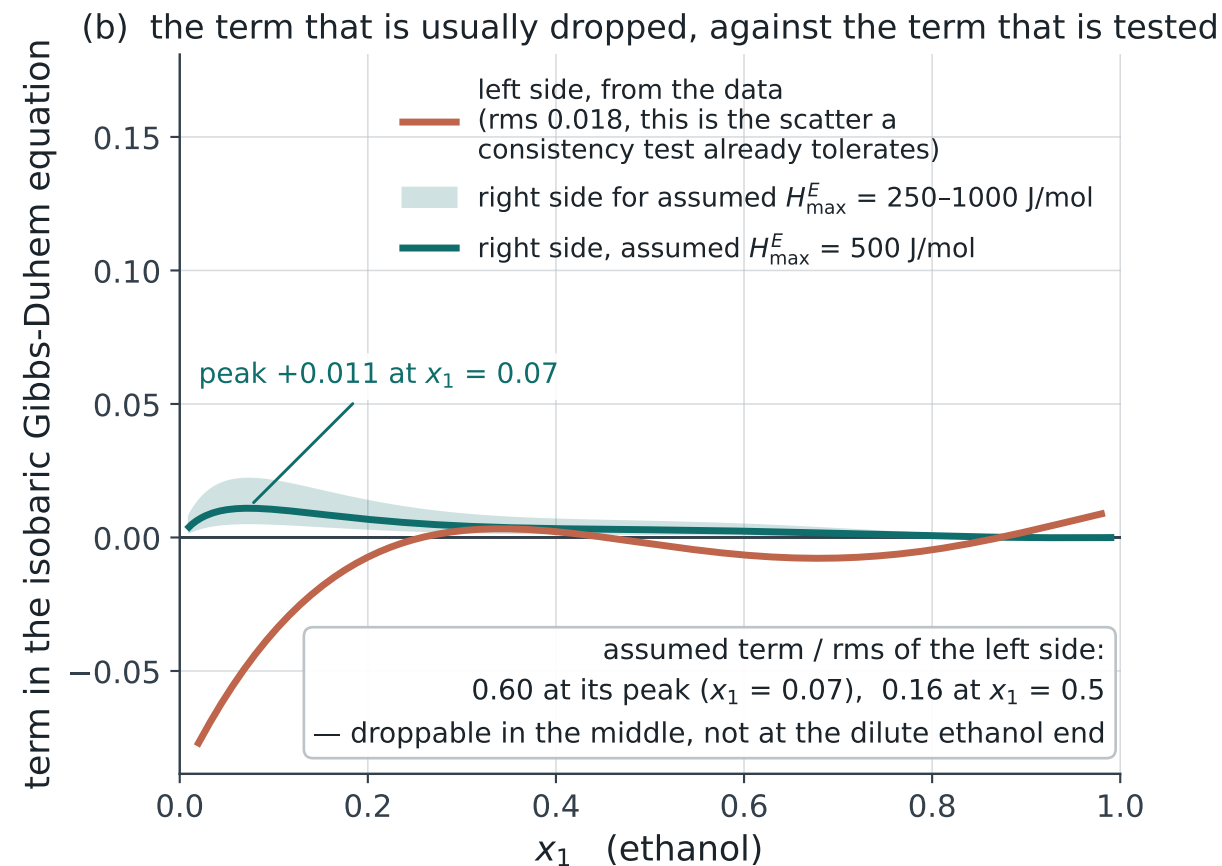
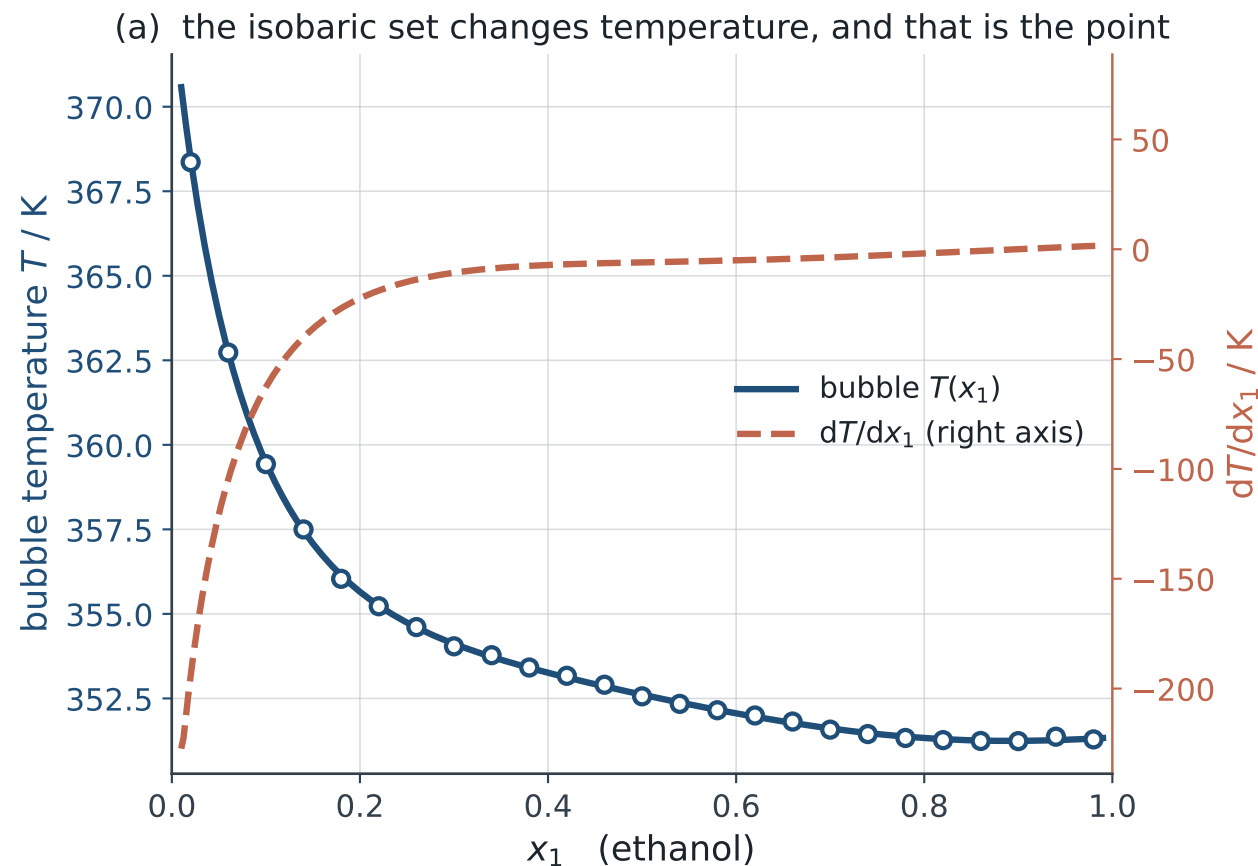


$$\text{Ethanol (1) / water (2) at 101.325 kPa: } x_1 \ln \gamma_1 / dx_1 + x_2 \ln \gamma_2 / dx_1 = - (H^E / RT^2) dT / dx_1$$



ASSUMED VALUE: $H^E = 4H_{\max}^E x_1 x_2$ with $H_{\max}^E = 500 \text{ J/mol}$ (band: 250–1000 J/mol). This is an assumed magnitude for an alcohol/water mixture near its boiling range, not a measurement; no calorimetric data are used anywhere in this package. dT/dx_1 and the left-hand side are computed, from `vlekit.regress.bubble_T` and `vlekit.consistency.gibbs_duhem_residual` respectively.