Supporting Information

Basis Set Convergence of the Binding Energies of Strongly Hydrogen-Bonded Atmospheric Clusters

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Figure S1: Minimum structures of the studied clusters optimized at the MP2/aug-cc-pVTZ level of theory. Color coding: yellow = sulfur, green = carbon, blue = nitrogen and white = hydrogen.
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Table S1: Interaction, relaxation, and binding energies for MP2 and the corresponding Δ^{(T)} contributions for the (H$_2$SO$_4$)(H$_2$O) cluster. All values are in kcal/mol.

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Table S3: Interaction, relaxation, and binding energies for MP2 and the corresponding Δ\text{(T)} contributions for the (H$_2$SO$_4$)((CH$_3$)$_2$NH) cluster. All values are in kcal/mol.

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Table S4: Interaction, relaxation, and binding energies for MP2 and the corresponding Δ\text{(T)} contributions for the (H$_2$SO$_4$)((CH$_3$)$_2$NH) cluster. All values are in kcal/mol.
Table S5: Interaction, relaxation, and binding energies for MP2 and the corresponding $\Delta^{(T)}$ contributions for the (H$_2$SO$_4$)((CH$_3$)$_3$N) cluster. All values are in kcal/mol.

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Table S6: Interaction, relaxation, and binding energies for MP2 and the corresponding $\Delta^{(T)}$ contributions for the (H$_2$SO$_4$)(H$_2$N(CH$_3$)$_2$NH$_2$) cluster. All values are in kcal/mol.

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**Table S7:** Interaction, relaxation, and binding energies for MP2 and the corresponding Δ(T) contributions for the \((H_2SO_4)(HCOOH)\) cluster. All values are in kcal/mol.

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**Table S8:** Interaction, relaxation, and binding energies for MP2 and the corresponding Δ(T) contributions for the \((H_2SO_4)(CH_3COOH)\) cluster. All values are in kcal/mol.
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**Table S9:** Interaction, relaxation, and binding energies for MP2 and the corresponding Δ(T) contributions for the (H₂SO₄)(HCO₃H) cluster. All values are in kcal/mol.

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**Table S10:** Interaction, relaxation, and binding energies for MP2 and the corresponding Δ(T) contributions for the (H₂SO₄)(CH₃CO₃H) cluster. All values are in kcal/mol.
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**Table S11:** Interaction, relaxation, and binding energies for MP2 and the corresponding \(\Delta^{(T)}\) contributions for the \((\text{H}_2\text{SO}_4)_2\) cluster. All values are in kcal/mol.