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## A total scattering study of prenucleation structures in saturated aqueous magnesium sulfate – observation of extended clusters

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## **Supplementary Information**

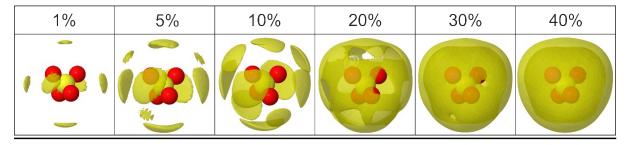


Figure S1. SDF for  $H_2O@SO_4$  demonstrating the dominant octahedral modes occurring prior to the tetrahedral modes.

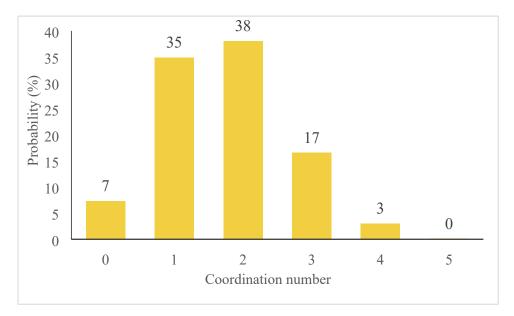


Figure S2. Sulfur to magnesium coordination numbers (<6 Å)

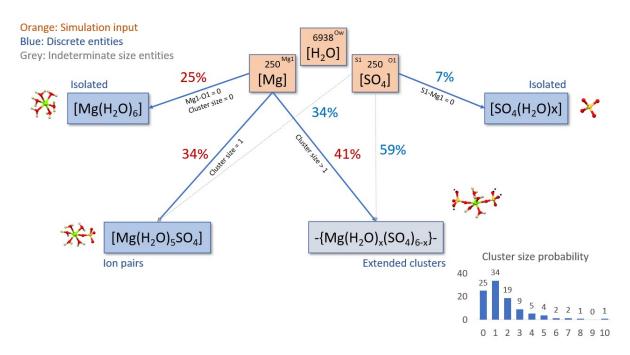


Figure S3. Cluster size interpretation based on cluster size analysis and coordination numbers.

**Table S1.** Minimum distance restraints applied to the EPSR refinement to supplement the seed potentials.

Restraint	Min r / Å
Mg1 – Ow	1.8
Hw – Hw	1.5
Hw – Mg1	1.5
Hw – S1	1.5
Hw - 01s	1.5
Mg1 – Mg1	3.0
Mg1 – S1	2.0
Mg1 – O1s	1.8
S1 – S1	3.0