

## Supporting Information

### Mutual polymorphic transformation of $\text{CsMgPO}_4 \cdot 6\text{H}_2\text{O}$ induced by solution pH

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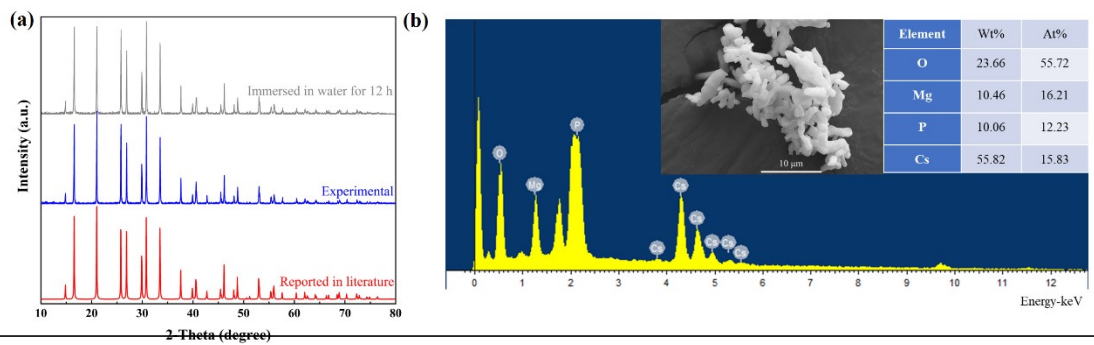


Figure S1. (a) Powder XRD patterns and (b) SEM/EDS images of the hexagonal form of  $\text{CsMgPO}_4 \cdot 6\text{H}_2\text{O}$ .

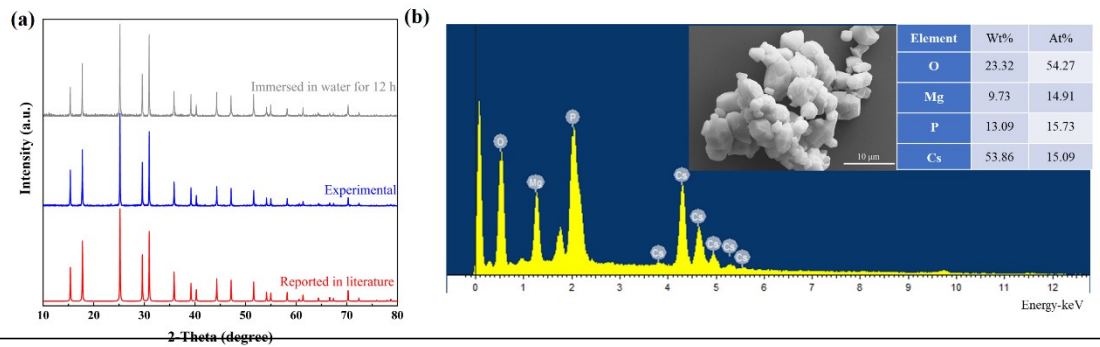


Figure S2. (a) Powder XRD patterns and (b) SEM/EDS images of the cubic form of  $\text{CsMgPO}_4 \cdot 6\text{H}_2\text{O}$ .

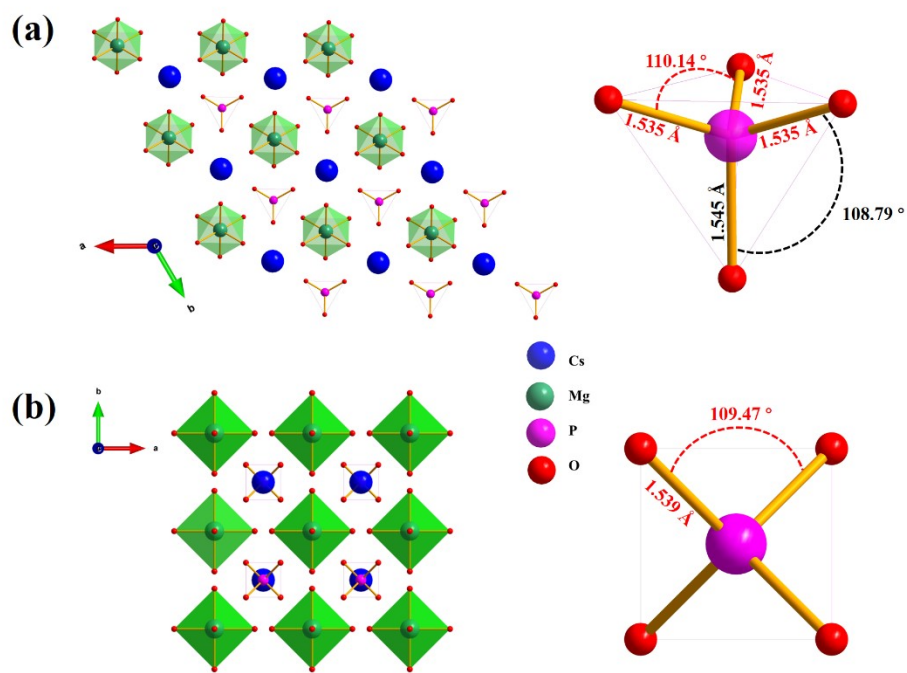


Figure S3. Structural information of the  $[\text{PO}_4]$  unit in (a) hexagonal form and (b) cubic form of  $\text{CsMgPO}_4 \cdot 6\text{H}_2\text{O}$