

Table S1. Precipitation to sediment or release of orthophosphates (V) from sediment within 1 measuring period

1 term			
Precipitation		Release	
JK1	JK2	JK1	JK2
Aragonite	Aragonite	$(\text{NH}_4)_2\text{SeO}_4(s)$	Anhydrite
$\text{Ca}_3(\text{PO}_4)_2$ (beta)	Calcite	Artinite	Artinite
Calcite	Dolomite (disordered)	Brucite	Brucite
Dolomite (disordered)	Dolomite (ordered)	$\text{Ca}_3(\text{PO}_4)_2$ (am1)	$\text{CaCO}_3 \cdot \text{H}_2\text{O}(s)$
Dolomite (ordered)	Vaterite	$\text{Ca}_3(\text{PO}_4)_2$ (am2)	Epsomite
Hydroxyapatite		$\text{Ca}_4\text{H}(\text{PO}_4)_3 \cdot 3\text{H}_2\text{O}(s)$	Gypsum
Vaterite		$\text{CaCO}_3 \cdot \text{H}_2\text{O}(s)$	Halite
		$\text{CaHPO}_4(s)$	Huntite
		$\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}(s)$	Hydromagnesite
		$\text{CaSeO}_4 \cdot 2\text{H}_2\text{O}(s)$	$\text{KCl}(s)$
		Halite	Lime
		Huntite	Magnesite
		Hydromagnesite	$\text{Mg}(\text{OH})_2$ (active)
		$\text{K}_2\text{SeO}_4(s)$	$\text{Mg}_2(\text{OH})_3\text{Cl} \cdot 4\text{H}_2\text{O}(s)$
		$\text{KCl}(s)$	$\text{MgCO}_3 \cdot 5\text{H}_2\text{O}(s)$
		Lime	Mirabilite
		Magnesite	Natron
		$\text{Mg}(\text{OH})_2$ (active)	Nesquehonite
		$\text{Mg}_2(\text{OH})_3\text{Cl} \cdot 4\text{H}_2\text{O}(s)$	Periclase
		$\text{Mg}_3(\text{PO}_4)_2(s)$	Portlandite
		$\text{MgCO}_3 \cdot 5\text{H}_2\text{O}(s)$	Thenardite
		$\text{MgHPO}_4 \cdot 3\text{H}_2\text{O}(s)$	Thermonatrite
		$\text{MgSeO}_4 \cdot 6\text{H}_2\text{O}(s)$	
		$\text{Na}_2\text{SeO}_4(s)$	
		Natron	
		Nesquehonite	
		Periclase	
		Portlandite	
		$\text{SeO}_3(s)$	
		Struvite	
		Thermonatrite	

Table S2. Precipitation to sediment or release of orthophosphates (V) from sediment within 2 measuring period

2 term			
Precipitation		Release	
JK1	JK2	JK1	JK2
Aragonite	Aragonite	(NH ₄) ₂ SeO ₄ (s)	Anhydrite
Ca ₃ (PO ₄) ₂ (am2)	Calcite	Artinite	Artinite
Ca ₃ (PO ₄) ₂ (beta)	Dolomite (disordered)	Brucite	Brucite
CaCO ₃ xH ₂ O(s)	Dolomite (ordered)	Ca ₃ (PO ₄) ₂ (am1)	Epsomite
Calcite	CaCO ₃ xH ₂ O(s)	Ca ₄ H(PO ₄) ₃ :3H ₂ O(s)	Gypsum
Dolomite (disordered)	Huntite	CaHPO ₄ (s)	Halite
Dolomite (ordered)	Magnesite	CaHPO ₄ :2H ₂ O(s)	Hydromagnesite
Huntite	Vaterite	CaSeO ₄ :2H ₂ O(s)	KCl(s)
Hydroxyapatite		Halite	Lime
Magnesite		Hydromagnesite	Mg(OH) ₂ (active)
Vaterite		K ₂ SeO ₄ (s)	Mg ₂ (OH) ₃ Cl:4H ₂ O(s)
		KCl(s)	MgCO ₃ :5H ₂ O(s)
		Lime	Mirabilite
		Mg(OH) ₂ (active)	Natron
		Mg ₂ (OH) ₃ Cl:4H ₂ O(s)	Nesquehonite
		Mg ₃ (PO ₄) ₂ (s)	Periclase
		MgCO ₃ :5H ₂ O(s)	Portlandite
		MgHPO ₄ :3H ₂ O(s)	Thenardite
		MgSeO ₄ :6H ₂ O(s)	Thermonatrite
		Na ₂ SeO ₄ (s)	
		Natron	
		Nesquehonite	
		Periclase	
		Portlandite	
		SeO ₃ (s)	
		Struvite	
		Thermonatrite	

Table S3. Precipitation to sediment or release of orthophosphates (V) from sediment within 3 measuring period

2 term			
Precipitation		Release	
JK1	JK2	JK1	JK2
Calcite	Aragonite	$(\text{NH}_4)_2\text{SeO}_4(s)$	Anhydrite
Dolomite (disordered)	Calcite	Aragonite	Artinite
Dolomite (ordered)	Dolomite (disordered)	Artinite	Brucite
Hydroxyapatite	Dolomite (ordered)	Brucite	$\text{CaCO}_3 \cdot \text{H}_2\text{O}(s)$
		$\text{Ca}_3(\text{PO}_4)_2(\text{am}1)$	Epsomite
		$\text{Ca}_3(\text{PO}_4)_2(\text{am}2)$	Gypsum
		$\text{Ca}_3(\text{PO}_4)_2(\text{beta})$	Halite
		$\text{Ca}_4\text{H}(\text{PO}_4)_3 \cdot 3\text{H}_2\text{O}(s)$	Huntite
		$\text{CaCO}_3 \cdot \text{H}_2\text{O}(s)$	Hydromagnesite
		$\text{CaHPO}_4(s)$	$\text{KCl}(s)$
		$\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}(s)$	Lime
		$\text{CaSeO}_4 \cdot 2\text{H}_2\text{O}(s)$	Magnesite
		Halite	$\text{Mg}(\text{OH})_2(\text{active})$
		Huntite	$\text{Mg}_2(\text{OH})_3\text{Cl} \cdot 4\text{H}_2\text{O}(s)$
		Hydromagnesite	$\text{MgCO}_3 \cdot 5\text{H}_2\text{O}(s)$
		$\text{K}_2\text{SeO}_4(s)$	Mirabilite
		$\text{KCl}(s)$	Natron
		Lime	Nesquehonite
		Magnesite	Periclase
		$\text{Mg}(\text{OH})_2(\text{active})$	Portlandite
		$\text{Mg}_2(\text{OH})_3\text{Cl} \cdot 4\text{H}_2\text{O}(s)$	Thenardite
		$\text{Mg}_3(\text{PO}_4)_2(s)$	Thermonatrite
		$\text{MgCO}_3 \cdot 5\text{H}_2\text{O}(s)$	Vaterite
		$\text{MgHPO}_4 \cdot 3\text{H}_2\text{O}(s)$	
		$\text{MgSeO}_4 \cdot 6\text{H}_2\text{O}(s)$	
		$\text{Na}_2\text{SeO}_4(s)$	
		Natron	
		Nesquehonite	
		Periclase	
		Portlandite	
		$\text{SeO}_3(s)$	
		Struvite	
		Thermonatrite	
		Vaterite	