

Supporting Information

Metallogels from Glycolipid Biosurfactant

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Table S 1 – List of polymers, peptides, peptide-derivatives, low-molecular weight gelators (LMWG), lipids, surfactants and biosurfactants in their interaction with metal salts. The type of phase is given as well as the discussion on the speciation of the metal ion.

Polymers				
Molecule	Cation(s)	Phase(s)	Speciation of metal ion discussed	References
Polymers (polygalacturonate)	Mg ²⁺ , Ca ²⁺ , Ba ²⁺ , Zn ²⁺ , Fe ²⁺	Fibrous gel	Yes	(1–4)
Polymer (A-PEG-His)	Co ²⁺	Gel phase	Yes	(5)
Low molecular weight (CTV, CTG)	Cu ²⁺ , Ag ⁺	Fibrous gel	No	(6)
Polymer based (alginate, SiO ₂)	Al ³⁺	Fibrous gel	No	(7)
Polymer (PNIPAM)	Cu ²⁺	Fibrous gel	No	(8)
Polymer (saccharide)	Mg ²⁺ , Ca ²⁺	Fibrous gel	No	(9)
Colloids (cellulose nanocrystal)	Na ⁺ , K ⁺ , Mg ²⁺ , Ca ²⁺	Fibrous gel	No	(10)
Peptides, Peptide derivatives and LMWG				
Peptides (marino bactine)	Fe ³⁺	Micelles to vesicles	No	(11)
			Yes	(12,13)
Peptide (Histidine)	Zn ²⁺	Fibrous gel	Yes	(14)
LMW	Pb ²⁺	Micelles to fibers	Yes	(15)
Peptide (N'FF)	Ca ²⁺	Micelle to fibers	No	(16)
Peptide based (oSt(His) ₆)	Ni ²⁺ , Cd ²⁺	Micelles	No	(17)
	Co ²⁺ , Cu ²⁺	Aggregated micelles	No	
	Mn ²⁺	Multilamellar Vesicles	No	
Peptide based	K ⁺ , Ca ²⁺	Fibrous gel	No	(16,18–21)
Peptide based (LysTPY)	Al ³⁺ , Pb ²⁺ , Zn ²⁺ , Tb ³⁺ , Bi ³⁺	Fibrous/sheets gel	No	(22)
Peptide based (FmocFF)	Na ⁺ , K ⁺ , Zn ²⁺ , Cu ²⁺ , Fe ³⁺ , Al ³⁺	β-sheet, random coil, helix	No	(23)
Bile salt	Ag ⁺	Fibers	No	(24)
Surfactants, Lipids and Biosurfactants				
Surfactant (SDS)	Al ³⁺ , Na ⁺ , Ca ²⁺	Micelles to elongated micelles and aggregates	No	(25–27)
	Na ⁺ , Al ³⁺ , Ca ²⁺ , Fe ²⁺	Micelles to aggregates, lamellar, vesicles, wormlike	Yes	(27–32)
Surfactant (DDBS, DDS)	Al ³⁺	Micelles to aggregates	Yes	(33)
surfactant (iso-stearic acid)	Ca ²⁺	Micelles to oil phase	No	(34)
Surfactant (SLES)	Al ³⁺	Micelles to lamellae	No	(35)
Surfactant (SDUC)	Cu ²⁺	Micelles to vesicles	No	(36)
Surfactant (SLE ₍₁₋₃₎ S)	Al ³⁺	Micelle to lamellar	No	(35,37)
Surfactant (SDE ₂ S)	Na ⁺ , Ca ²⁺ , Al ³⁺	Spherical to cylindrical micelles	No	(38)
Surfactant (SDS/TPS)	Na ⁺ , Mg ²⁺ , Zn ²⁺ , and Al ³⁺	Spherical to wormlike micelles	No	(39)
Surfactant (SDP2S)	Al ³⁺ , Ca ²⁺	Spherical to wormlike micelles	No	(40–42)

Surfactant (DoBS)	Na ⁺ , K ⁺ , Li ⁺ , Cs ⁺ , Ca ²⁺	Micelles to lamellar, hexagonal	No	(43)
Lipids (DLPC)	Ca ²⁺	Lamellar phase	No	(44)
Lipids (DLPS, DOPS)	Na ⁺	Lamellar to crystal phase	No	(45)
Biosurfactant (rhamnolipids)	Ca ²⁺	Micelles to lamellar	No	(46)
Biosurfactant (surfactin)	K ⁺ , Li ⁺ , Ca ²⁺ , Ba ²⁺	Micelles to rod to lamellar	No	(47)
Biosurfactant (rhamnolipids)	Cu ²⁺ , Zn ²⁺ , Ni ²⁺	Micelles, vesicles, large structures	No	(48)

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