

Supporting Information

Lyotropic liquid crystals as templates for advanced materials

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Table S1. Amphiphiles, (co)monomers, cross-linkers and initiators used in LLC templating.

No.	Name/Chemical Formula
P-A-1	Allyl dodecyldimethylammonium bromide
P-A-2	Allyl didodecylmethylammonium bromide
P-A-3	ω -Undecenyltrimethylammonium bromide
P-A-4	(11-Methacryloylundecyl)trimethylammonium bromide
P-A-5	2-(Methacryloyloxy)ethyl dodecyl dimethyl ammonium bromide
P-A-6	2-(Methacryloyloxy)ethyl tetradecyl dimethyl ammonium bromide
P-A-7	2-(Methacryloyloxy)ethyl hexadecyl dimethyl ammonium bromide
P-A-8	Dodecyldimethylammoniumethylmethacrylate bromide
P-A-9	2-(Acryloyloxy)ethyl dodecyl dimethyl ammonium bromide
P-A-10	(11-Acryloyloxy-undecyl)-dimethyl-[2-(methacryloyloxy)-ethyl]-ammonium bromide
P-A-11	<i>N,N</i> -Di(11-acryloyloxy-undecyl)- <i>N,N,N,N</i> -tetramethyl-hexane-1,6-diammonium dibromide
P-A-12	C ₅₉ H ₆₆ NO ₂ ²⁺ Br ⁻
P-A-13	C ₆₉ H ₉₀ N ₃ O ₂₄ ³⁺ Br ³⁻
P-A-14	C ₅₃ H ₇₄ N ₃ O ₁₇ ³⁺ Br ³⁻
P-A-15	Sodium 10-undecenoate
P-A-16	Zinc 10-undecenoate
P-A-17	Dodecyl ammonium acrylate
P-A-18	Dodecyl ammonium methacrylate
P-A-19	<i>mon</i> -isoMeDenPE
P-A-20	<i>bis</i> -isoMeDenPC
P-A-21	C ₄₈ H ₈₄ NO ₆ ⁺ P ⁻
P-A-22	Hitenol BC-05
P-A-23	C ₂₇ H ₄₄ Na ⁺ O ₂ ⁻
P-A-24	C ₂₉ H ₄₉ NO ₂ Na ⁺ SO ₃ ⁻
P-A-25	C ₁₂ H ₁₄ (CH ₂) _k (CH ₂) _m Na ⁺ O ₃ ⁻
P-A-26	C ₄₉ H ₈₀ Na ⁺ O ₁₁ ⁻
P-A-27	C ₁₉ H ₁₄ (CH ₂) _{3n} Na ⁺ O ₅ ⁻
P-A-28	C ₅₂ H ₈₈ NO ₁₃ S ⁻ Li ⁺
P-A-29	C ₅₈ H ₉₈ N ₂ O ₁₁ ⁺ BF ₄ ⁻
P-A-30	C ₅₈ H ₁₀₀ N ₂ O ₁₁ ⁺ BF ₄ ⁻
P-A-31	C ₇ H ₁₄ (CH ₂) _n P ⁺ Br ⁻
P-A-32	C ₁₃ H ₂₂ (CH ₂) _k (CH ₂) _l P ₂ ²⁺ Br ₂ ²⁻
P-A-33	C ₁₃ H ₂₂ (CH ₂) _k (CH ₂) _l N ₂ ²⁺ Br ₂ ²⁻
P-A-34	TMA-83u
P-A-35	C ₄₈ H ₈₄ N ₄ ²⁺ Br ₂ ²⁻
P-A-36	1-(8-(Acryloyloxy)octyl)-3-methylimidazolium Chloride 1-(10-(Acryloyloxy)decyl)-3-methylimidazolium Chloride
P-A-37	1-(10-Thien-3-yl)decyl-3-methylimidazolium nitrate
P-A-38	1-Decyl-3-methylimidazolium Acrylate
P-A-39	1-Dodecyl-3-Propargylimidazolium Bromide
P-A-40	3-Decyl-1-vinylimidazolium chloride
P-A-41	Nanodiamond-[COC ₁₀ H ₂₀ VIm ⁺][Br ⁻]
P-A-42	Quantum-Dot-[SC ₁₀ BrVIm ⁺][Cl ⁻]
P-A-43	C ₃₃₀ H ₅₂₈ N ₈ O ₅₀ P ₃ P ₄ ⁴⁺ (PF ₆) ₄
P-A-44	Monoacylglycerol
P-A-45	1,2-Diaclylglycerol
P-A-46	Noigen RN-10
P-A-47	α,ω -hydrophobically modified poly(oxyethylene)
P-A-48	Ether-substituted perfluoroalkyl methacrylic acid
P-A-49	C ₅₂ H ₈₉ NO ₁₅ S
P-A-50	C ₅₃ H ₈₉ NO ₁₂
P-A-51	C ₆₄ H ₁₀₃ N ₃ O ₁₁
P-A-52	Poly(ethylene oxide)- <i>b</i> -poly(butadiene)
P-A-53	MA-PEO-PDMS-PEO-MA
P-A-54	PEO- <i>b</i> -PDMS- <i>b</i> -PEO-cinnamate triblock copolymer
P-A-55	Pluronic diacrylate
P-A-56	3-(2,4,13-(E,E)-tetradecatrienoyl)- <i>sn</i> -glycerol
A-1	Didodecyldimethylammonium bromide
A-2	Diocetadecyldimethylammonium bromide
A-3	Dodecyltrimethylammonium bromide
A-4	Tetradecyltrimethylammonium bromide
A-5	Cetyltrimethylammonium bromide
A-6	Octadecyltrimethylammonium bromide
A-7	<i>N,N</i> -dimethyldodecylamine- <i>N</i> -oxide
A-8	Dimyristoylphosphatidylcholine
A-9	1-Decyl-3-methylimidazolium Chloride
A-10	Sodium dodecyl sulfate
A-11	Cetyltrimethylammonium tartrate
A-12	Diocetyl sodium sulfosuccinate
A-13	Brij 52
A-14	Brij 56
A-15	Brij 58
A-16	Dodecyl poly(ethyleneglycol) ether
A-17	PS- <i>b</i> -PEO (SE10/10)
A-18	Poly(oxyethylene) oleyl ether
A-19	Pluronic
A-20	Tween 60

Polymerizable Amphiphiles

Non-Polymerizable Amphiphiles

Table S1. (cont.)

	No.	Name
(Co)Monomers	M-1	Styrene
	M-2	Methyl methacrylate
	M-3	Methyl acrylate
	M-4	<i>n</i> -Butyl acrylate
	M-5	<i>n</i> -Hexyl acrylate
	M-6	<i>n</i> -Decyl acrylate
	M-7	<i>n</i> -Dodecyl methacrylate
	M-8	Glycidyl methacrylate
	M-9	Acrylamide
	M-10	<i>N</i> -Isopropylacrylamide
	M-11	<i>N,N</i> -Dimethylacrylamide
	M-12	2-(Dimethylamino)ethyl methacrylate
	M-13	2-Hydroxyethyl methacrylate
	M-14	2-Carboxyethyl acrylate
	M-15	2-(Acrylamido)-2-methyl-1-propanesulfonic acid
	M-16	Sodium acrylate
	M-17	Acrylic acid
	M-18	2,3-Dihydrothieno[3,4- <i>b</i>]-1,4-dioxin
	M-19	dimethyldimethoxysilane
	M-20	1,6-Hexanediol diacrylate
	M-21	Ethylene glycol dimethacrylate
	M-22	1,6-Hexanediol dimethacrylate
	M-23	Poly(ethylene glycol) dimethacrylate
	M-24	Poly(ethylene glycol) diacrylate
	M-25	Ethylxy succinate dimethacrylate
	M-26	PLA- <i>b</i> -PEG- <i>b</i> -PLA diacrylate
	M-27	PLA- <i>b</i> -PEG- <i>b</i> -PLA dimethacrylate
	M-28	Caprolactone dimethacrylate
	M-29	Methacrylated poly(dimethylsiloxane)
	M-30	Poly(ethyleneglycol)-poly(lactic acid)-hexamethylene dimethacrylate
	M-31	3-Sulfopropyl acrylate
	M-32	[2-(Acryloyloxy)ethyl]trimethylammonium chloride
	M-33	Silver acrylate
	M-34	Phenol/formaldehyde
	M-35	3,9-Dioxidophenanthrene-1,5-dicarboxylate
	M-36	Phloroglucinol
	M-37	Resorcinol
	M-38	Bisphenol A diglycidyl ether
	M-39	1,4-Diphenylbutadiyne
	M-40	3-Hexylthiophene
	M-41	Aniline
Cross-linkers	C-1	1,4-Divinylbenzene
	C-2	<i>N,N'</i> -Methylenebisacrylamide
	C-3	Neopentyl glycol diacrylate
	C-4	Methyltrimethoxysilane
	C-5	1,8-Octanediol dimethacrylate
	C-6	1,6-Hexanediol dimethacrylate
	C-7	1,4-Butanediol diacrylate
	C-8	Ethylene glycol dimethacrylate
	C-9	Poly(ethylene glycol) dimethacrylate
	C-10	Poly(ethylene glycol) diacrylate
	C-11	Diallylamine
	C-12	Formaldehyde
	C-13	Glyoxal
	C-14	1,4-Bis(chloromethyl)benzene
	C-15	1-Ethyl-3-methylimidazolium dicyanamide
Initiators	I-1	2-Hydroxy-2-methylpropiophenone
	I-2	2,2-Dimethoxy-2-phenylacetophenone
	I-3	2-Methoxy-2-phenylacetophenone
	I-4	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
	I-5	2-Hydroxy-4'-(2-hydroxyethoxy)-2-methylpropiophenone
	I-6	2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)-butanone-1
	I-7	2-Hydroxy-2-methyl-1-(4-(1-methylvinyl)phenyl)propanone
	I-8	Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide
	I-9	1-Hydroxycyclohexyl phenyl ketone
	I-10	2-Methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-1-propanone
	I-11	Benzophenone
	I-12	4-(Dimethylamino)benzophenone
	I-13	Eosine Y/Triethanolamine
	I-14	Eosine/Methylene blue/Ethanolamine
	I-15	Azobisisobutyronitrile
	I-16	Hydrogen peroxide
	I-17	Ammonium persulfate
	I-18	Potassium persulfate
I-19	Potassium persulfate/ <i>L</i> -Cysteine	
I-20	Potassium persulfate/Sodium bisulfite	
I-21	Rhodium(III) chloride hydrate	
I-22	FeCl ₃	
I-23	Benzoyl peroxide	