

Supporting Information

HIGH THROUGHPUT DISCOVERY OF NEW FOULING-RESISTANT SURFACES












Mingyan Zhou, Hongwei Liu, Adith Venkiteshwaran, James Kilduff, Daniel G. Anderson, Robert Langer and Georges Belfort

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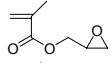
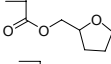
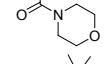
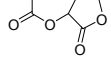
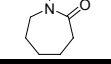
Table S1. Name, structure, and formula weight of monomers employed in this study.

Notes: Monomers were dissolved in DI water unless designated by superscript “a” which indicates that 90% ethanol was used as the solvent. Commercial vinyl monomers were purchased from Sigma-Aldrich (Saint Louis, MO) and were used as-received without further purification.

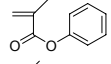
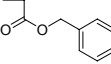
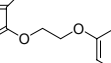
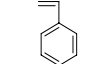
A. Methacrylates having hydrophobic side chains

#	Name	Structure	FW
1 ^a	Methyl methacrylate		100.12
2 ^a	Ethyl methacrylate		114.14
3 ^a	Butyl methacrylate		140.20
4 ^a	Isobutyl methacrylate		142.20
5 ^a	<i>tert</i> -Butyl methacrylate		142.20
6 ^a	Hexyl methacrylate		170.25
7 ^a	2-Ethylhexyl methacrylate		198.30
9 ^a	Allyl methacrylate		126.15
14 ^a	Cyclohexyl methacrylate		168.23
19 ^a	Isobornyl methacrylate		222.32
28 ^a	Ethylene glycol dicyclopentenyl ether methacrylate		262.34

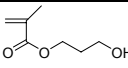
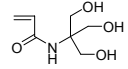
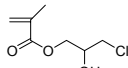
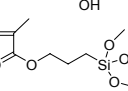
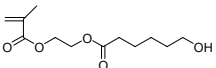
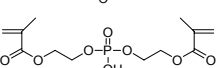
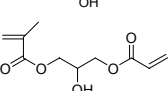
B. Hetero ring group monomers

#	Name	Structure	FW
16 ^a	Glycidyl methacrylate		142.15
17 ^a	Tetrahydrofurfuryl methacrylate		170.21
39	4-Acryloylmorpholine		141.17
40	(<i>R</i>)- α -Acryloyloxy- β,β -dimethyl- γ -butyrolactone		184.19
38 ^a	<i>N</i> -Vinylcaprolactam		139.19

C. Aromatic monomers

#	Name	Structure	FW
15 ^a	Phenyl methacrylate		162.19
18 ^a	Benzyl methacrylate		176.21
26 ^a	Ethylene glycol phenyl ether methacrylate		206.24
37 ^a	Styrene		104.15

D. Hydroxy monomers

#	Name	Structure	FW
24 ^a	Hydroxypropyl methacrylate		144.17
54	N-[Tris(hydroxymethyl)methyl]acrylamide		175.18
25 ^a	3-Chloro-2-hydroxypropyl methacrylate		178.61
21 ^a	3-(Trimethoxysilyl)propyl methacrylate		248.35
66 ^a	Caprolactone 2-(methacryloyloxy)ethyl ester		244.28
64 ^a	Bis[2-(methacryloyloxy)ethyl] phosphate		322.25
13 ^a	3-(Acryloyloxy)-2-hydroxypropyl methacrylate		214.22

F. Strong and weak acid monomers

#	Name	Structure	FW
65 ^a	mono-2-(Methacryloyloxy)ethyl maleate		228.20
42 ^a	mono-2-(Methacryloyloxy)ethyl succinate		230.21
43	Acrylic acid		72.06
44	2-Acrylamidoglycolic acid		163.13
45	Methacrylic acid		86.09
50	Itaconic acid		130.10
46	3-Sulfopropyl methacrylate potassium salt		246.32
47 ^a	Ethylene glycol methacrylate phosphate		210.12
48	2-Acrylamido-2-methyl-1-propanesulfonic acid		207.25
49	4-Styrenesulfonic acid sodium salt		206.19

G. Amine monomers

#	Name	Structure	FW
58	Acrylamide		71.08
51	<i>N</i> -Isopropylacrylamide		113.16
52 ^a	<i>N-tert</i> -Butylacrylamide		127.18
55	2-(Dimethylamino)ethyl methacrylate		157.21
56 ^a	2-(Diethylamino)ethyl methacrylate		185.26
57	<i>N</i> -[3-(Dimethylamino)propyl]methacrylamide		170.25

H. Basic and Zwitterionic monomers

#	Name	Structure	FW
59	[3-(Methacryloylamino)propyl]dimethyl(3-sulfopropyl)ammonium hydroxide inner salt		292.39
60	[2-(Methacryloyloxy)ethyl]dimethyl-(3-sulfopropyl)ammonium hydroxide		279.35
61	[2-(Methacryloyloxy)ethyl]trimethylammonium chloride		207.70
62	[3-(Methacryloylamino)propyl]trimethylammonium chloride		220.74
63	[2-(Methacryloyloxy)ethyl]trimethylammonium methyl sulfate		283.34

I. Other monomers

#	Name	Structure	FW
41	Methacrylonitrile		67.09
36	N-Vinylformamide		71.08
10 ^a	2,2,2-Trifluoroethyl methacrylate		168.11
20 ^a	Trimethylsilyl methacrylate		158.27
22 ^a	2-Isocyanatoethyl methacrylate		155.15
11 ^a	2-(Methacryloyloxy)ethyl acetoacetate Or (2-Acetoacetoxyethyl methacrylate)		214.22
53	Diacetone acrylamide		169.22