

# Molecularly Imprinted Nanoparticle-Based Assay (MINA) for Microcystin-LR Detection in Water

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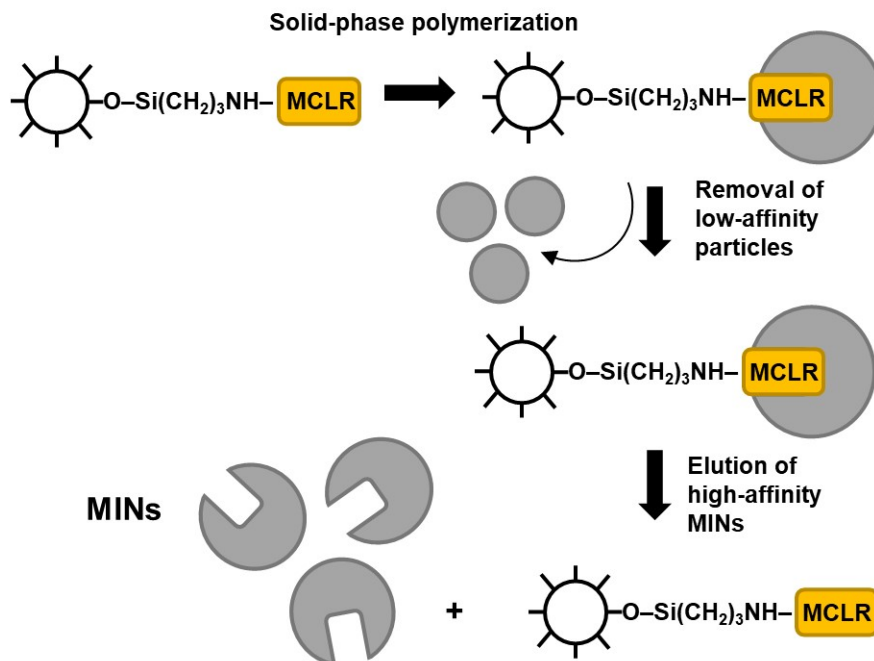
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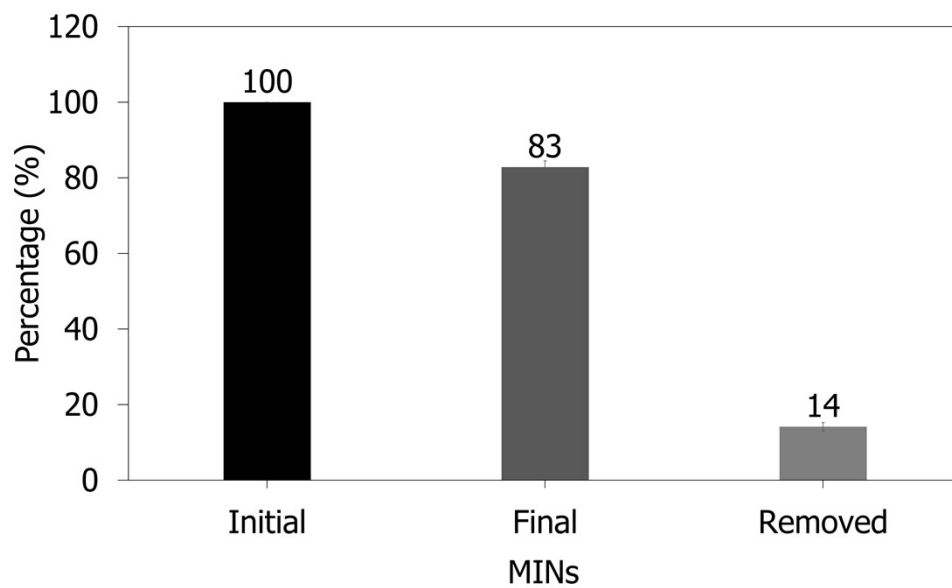
**Table S1.** Virtual library of functional monomers

1	1-vinylimidazole
2	1-vinylimidazole +
3	2-hydroxyethyl methacrylate
4	4-vinylpyridine
5	Acrylamide
6	Acrylic acid
7	Acrylic acid -
8	p-Divinylbenzene
9	Ethylene glycol dimethacrylate (EGDMA)
10	Itaconic acid
11	Itaconic acid 2-
12	m-Divinylbenzene
13	<i>N,N'</i> -methylene <i>bis</i> acrylamide
14	Methacrylic acid
15	Methacrylic acid -
16	Styrene
17	<i>N,N</i> -diethylamino ethyl methacrylate (DEAEM)
18	<i>N,N</i> -diethylamino ethyl methacrylate + (DEAEM+)
19	Trifluoromethacrylic acid
20	Trifluoromethacrylic acid -
21	<i>N</i> -vinyl formamide
22	2, 6-bis(acrylamido) pyridine
23	<i>N</i> -[2-(1(3)H-imidazol-4-yl)ethyl]-acrylamide
24	2-methacrylamido pyridine
25	<i>N,N'</i> -diethyl(4-vinylphenyl)amidine
26	Monoacryloxyethyl phosphate
27	Dansyl allylamide
28	4-vinylpyridine +
29	2-vinylpyridine
30	2-vinylpyridine +
31	NPEDMA +
32	Methacrylamide
33	EGMP
34	EGMP 2-
35	PETRA
36	EBA
37	BTFMU
38	2-(dimethylamino)ethyl acrylate
39	2-N-Morpholinoethyl methacrylate
40	3-(dimethylamino)propyl acrylate
41	4-acryloylmorpholine
42	Bis[2-(methacryloyloxy)ethyl] phosphate
43	<i>N,N</i> -diethylmethacrylamide

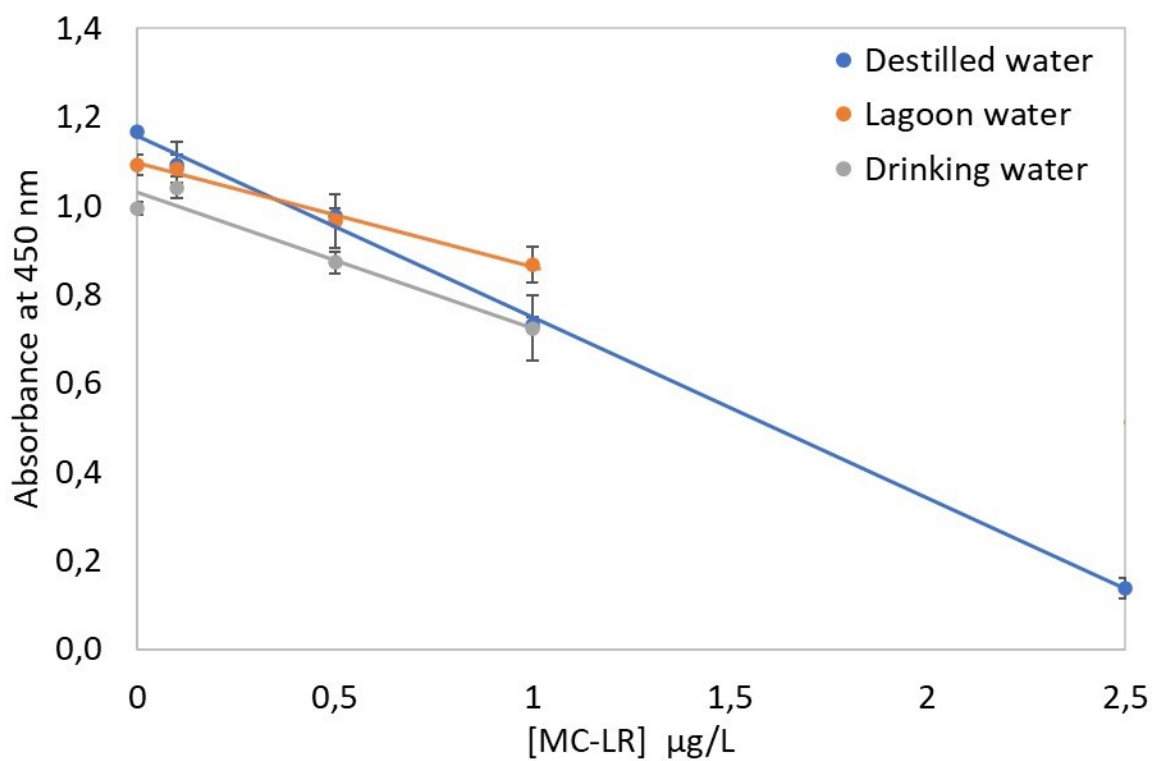
44	<i>N,N</i> -dimethylacrylamide
45	<i>N</i> -(hydroxymethyl)acrylamide
46	<i>N</i> -Acryloylamido-ethoxyethanol
47	<i>N</i> -Hydroxyethyl acrylamide
48	2-(2-Oxo-1-imidazolidinyl)ethyl methacrylate
49	2-aminoethyl methacrylate
50	2-Carboxyethyl acrylate
51	<i>N</i> -Isopropylacrylamide
52	<i>N</i> -allylthiourea
53	<i>N-tert</i> -butylacrylamide
54	<i>N</i> -(3-aminopropyl) methacrylamide
55	BTFMT
56	BMBVPU
57	2-(diethylamino)ethyl methacrylate
58	Di(ethylene glycol)diacrylate
59	<i>N</i> -2-propenyl-(5-dimethylamino)-1-naphthalene sulfonamide
60	BMBVPU 1 (linear)
61	Monoacryloxyethyl phosphate -
62	2-(diethylamino)ethyl methacrylate +
63	2-aminoethyl methacrylate +
64	<i>N</i> -(3-aminopropyl) methacrylamide +
65	4-acryloylmorpholine +
66	3-(dimethylamino)propyl acrylate +
67	2-(dimethylamino)ethyl acrylate +
68	2- <i>N</i> -Morpholinoethyl methacrylate +
69	EBA +



**Figure S1.** Schematic representation of the solid-phase synthesis of MINs for MC-LR recognition.



**Figure S2.** MIN leaching during the development of MINA protocol.



**Figure S3.** Determination of MC-LR concentration in aqueous samples (distilled water, lagoon water and drinking water) using the antibody-based commercial assay Abnova, Microcystin-LR ELISA Kit, LOD 0.10 nmol L<sup>-1</sup>)