

Supported ionic liquids to purify microbial L-Asparaginase

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Table S1. Purification of ASNase produced by *D. lacustris* using 10 mg of [Si][N₃₁₁₄]Cl or [Si][N₃₂₂₂]Cl and 1 mL of enzymatic extract at different total protein concentrations for 60 min. Specific activity of ASNase and purification factor from the supernatants after contact with SILs.

Enzymatic extract total protein concentration (mg/mL)	Specific ASNase activity (U/mg)		ASNase purification factor	
	[Si][N ₃₁₁₄]Cl	[Si][N ₃₂₂₂]Cl	[Si][N ₃₁₁₄]Cl	[Si][N ₃₂₂₂]Cl
10	0.108 ± 0.010	0.122 ± 0.016	2.1 ± 0.04	1.0 ± 0.10
7.5	0.113 ± 0.007	0.084 ± 0.003	3.3 ± 0.29	0.9 ± 0.01
5	0.070 ± 0.003	0.075 ± 0.010	3.6 ± 0.20	1.3 ± 0.12
3	0.046 ± 0.001	0.042 ± 0.001	4.7 ± 0.04	1.1 ± 0.02

Table S2. Purification of ASNase produced by *D. lacustris* using 10 mg of [Si][N₃₁₁₄]Cl or [Si][N₃₂₂₂]Cl and 1 mL of enzymatic extract at 3 mg/mL during different periods of time. Specific activity of ASNase and purification factor from the supernatants after contact with SILs.

Time of contact (min)	Specific ASNase activity (U/mg)		ASNase purification factor	
	[Si][N ₃₁₁₄]Cl	[Si][N ₃₂₂₂]Cl	[Si][N ₃₁₁₄]Cl	[Si][N ₃₂₂₂]Cl
90	0.030 ± 0.002	0.033 ± 0.001	4.5 ± 0.26	1.0 ± 0.30
60	0.046 ± 0.001	0.042 ± 0.001	4.7 ± 0.22	1.1 ± 0.02
30	0.039 ± 0.001	0.037 ± 0.004	4.8 ± 0.01	0.7 ± 0.29
15	0.038 ± 0.002	0.037 ± 0.001	4.4 ± 0.40	0.7 ± 0.03
10	0.040 ± 0.001	0.035 ± 0.002	4.0 ± 0.06	0.8 ± 0.06
5	0.039 ± 0.004	0.038 ± 0.001	4.1 ± 0.40	0.7 ± 0.02

Table S3. Purification of ASNase produced by *D. lacustris* using different amounts of [Si][N₃₁₁₄]Cl or [Si][N₃₂₂₂]Cl and 1 mL of enzymatic extract at 3 mg/mL for 60 min. Specific activity of ASNase and purification factor from the supernatants after contact with SILs.

SIL (mg)	Specific ASNase activity (U/mg)		ASNase purification factor	
	[Si][N ₃₁₁₄]Cl	[Si][N ₃₂₂₂]Cl	[Si][N ₃₁₁₄]Cl	[Si][N ₃₂₂₂]Cl
100	0.040 ± 0.001	0.028 ± 0.001	6.1 ± 0.21	3.7 ± 0.21
50	0.040 ± 0.002	0.029 ± 0.001	5.1 ± 0.10	1.9 ± 0.01
30	0.032 ± 0.002	0.025 ± 0.004	4.2 ± 0.45	1.1 ± 0.01
20	0.034 ± 0.002	0.034 ± 0.001	4.0 ± 0.05	1.0 ± 0.01
10	0.028 ± 0.001	0.042 ± 0.001	3.8 ± 0.05	1.1 ± 0.02
3	0.030 ± 0.001	0.042 ± 0.001	3.7 ± 0.04	1.1 ± 0.02