

Supporting Information

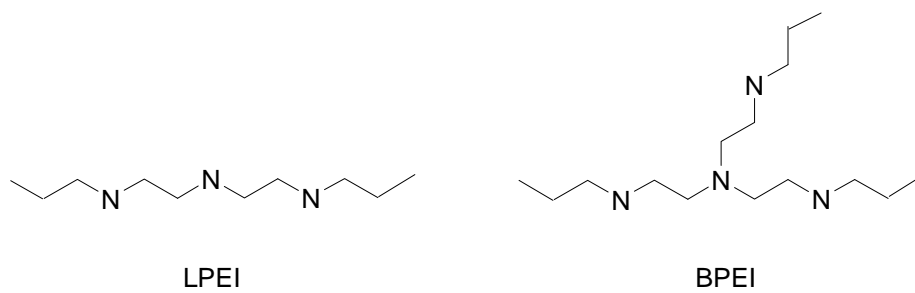


Figure S1. Chemical structure of LPEI and BPEI (basic form).

Table S1. Crystal phases obtained in the presence of polyamines.

Polymer	Concentration [mg/mL]	Initial pH	CaP Polymorph	Final pH
LPEI	4	5	Brushite	4.05
LPEI	6	5	Brushite	4.70
LPEI	8	5	Brushite	4.68
LPEI	10	5	Brushite	5.16
BPEI	4	5	Brushite	4.26
BPEI	6	5	Brushite	4.18
BPEI	8	5	Brushite	4.62
BPEI	10	5	Brushite	5.30
LPEI	4	8	HAP	5.16
LPEI	6	8	HAP	6.60
LPEI	8	8	HAP	5.50
LPEI	10	8	HAP	6.42
BPEI	4	8	HAP	4.89
BPEI	6	8	HAP	5.69
BPEI	8	8	HAP	6.31
BPEI	10	8	HAP	6.60

Table S2. Measured d-spacings in comparison to d-spacings from JCPDS files for HAP

2-Theta	d	2-Theta (JCPDS card: 00- 001-1008)	d (JCPDS card: 00- 001-1008)
25.92	3.434	25.886	3.439
28.27	3.154	28.697	3.108
32.07	2.789	32.090	2.786
34.21	2.619	24.223	2.617
39.93	2.256	39.652	2.271
42.27	2.136	42.464	2.126
44.15	2.050	43.919	2.059
46.92	1.935	46.827	1.938
49.91	1.826	49.541	1.838
53.71	1.705	53.516	1.710
64.29	1.448	64.181	1.449

Table S3. Measured d-spacings in comparison to d-spacings from JCPDS files for brushite.

2-Theta	d	2-Theta (JCPDS card: 00-002-0085)	d (JCPDS card: 00-001-1008)
11.681	7.570	11.734	7.535
21.202	4.187	21.238	4.180
23.689	3.753	23.565	3.772
26.625	3.345	26.766	3.327
29.562	3.019	29.481	3.027
30.864	2.895	30.742	2.900
31.693	2.821	31.614	2.827
34.630	2.588	34.330	2.610
37.448	2.400	37.336	2.406
40.171	2.243	40.051	2.249
42.070	2.146	41.797	2.159
42.362	2.132	42.379	2.131
43.872	2.062	43.736	2.068
45.324	1.999	45.094	2.008
45.803	1.979	45.579	1.988
46.354	1.957	46.355	1.957
48.998	1.858	48.682	1.862
49.251	1.849	49.555	1.837

50.638	1.801	50.719	1.798
50.247	1.814	51.301	1.779
54.033	1.696	53.919	1.699
54.314	1.688	54.986	1.668

Table S4. Total organic content of precipitates obtained in presence of polyamine, based on elemental analysis.

Polymer	Concentration [mg/mL]	Initial pH	Total organic content %
LPEI	10	5	7,437
BPEI	10	5	7,88
LPEI	10	8	8,805
BPEI	10	8	6,878

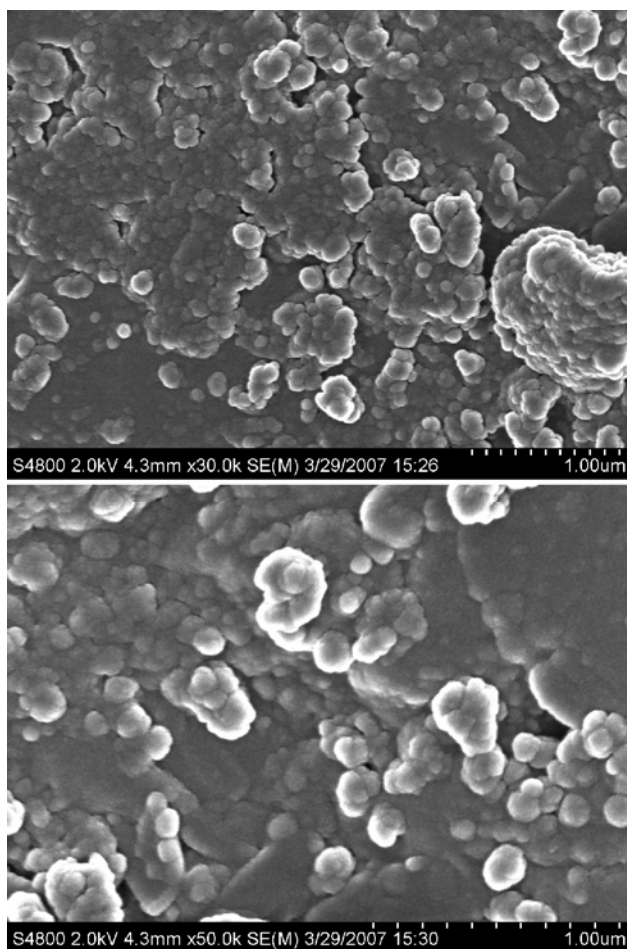


Figure S2. SEM images of a sample precipitated at pH 8 in the presence of 4 mg/mL of BPEI.