

SUPPORTING INFORMATION

Insights into the formation, structural properties and performance of RAFT polymerized L-phenylalanine anilide molecularly imprinted polymers

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Table S1. Heat generation and vinyl conversions during dynamic temperature scans of prepolymerization mixtures corresponding to the polymers in Table 1.

Polymer	Enthalpy (J/g)/°C	Enthalpy (J/mol)	Double bond conversion %
MIPA	131	32095	58,5
MIPB	141	34545	63,0
MIPC	142	34790	63,4
MIPD	178	43610	79,5
MIPE	144	35280	64,3
MIPF	178	43610	79,5
NIPA	136	33320	60,7
NIPB	162	39690	72,4
NIPC	178	43610	79,5
NIPD	205	50225	91,6
NIPE	207	50715	92,5
NIPF	192	47040	85,8

Table S2. Temperature at x % weight loss of imprinted and non imprinted polymers.

Polymer code	Onset (°C)	Temperature at 'x'% mass loss		
		T₂₅(°C)	T₅₀(°C)	T₇₅(°C)
MIPA	248	279	320	395
MIPB	263	294	336	399
MIPC	309	311	360	409
MIPD	339	345	384	416
MIPE	343	356	387	416
MIPF	347	357	396	420
NIPA	240	274	313	390
NIPB	261	294	336	395
NIPC	315	320	370	408
NIPD	325	345	378	412
NIPE	336	354	385	414
NIPF	345	354	390	416

Table S3. Pore analysis parameters of the imprinted polymers determined by nitrogen sorption porosimetry

Polymer Code	Pore diameter (nm)	Pore volume (mL/g)	Surface area (m ² /g)
NIPA	32	0.67	356
NIPB	24	0.82	386
NIPC	16	0.76	381
NIPD	7.6	0.51	354
NIPE	4.4	0.34	318
NIPF	3.7	0.20	274

The parameters were calculated from the nitrogen adsorption isotherms as described in the experimental part.

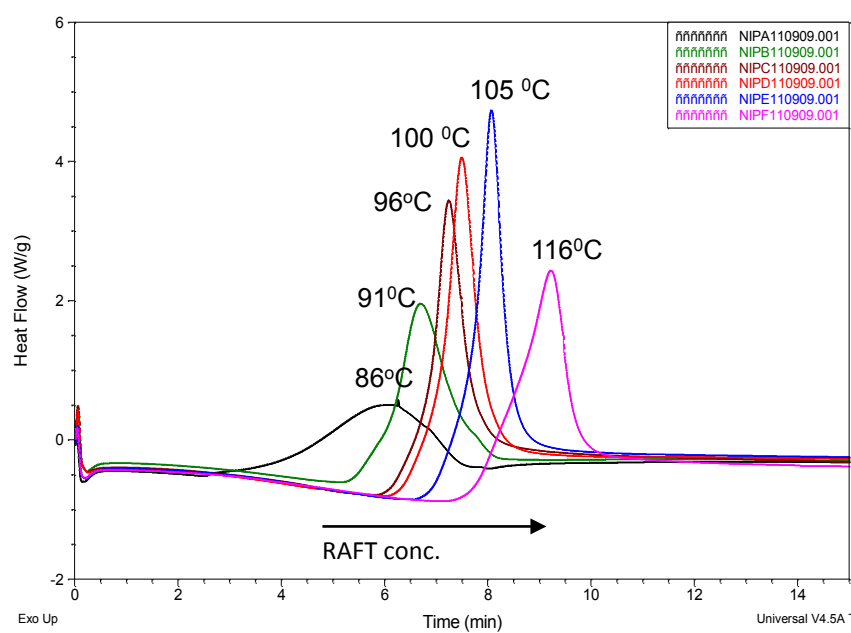


Figure S1. Heat generation during a dynamic temperature scan (10°C/min) of the NIP prepolymerisation mixtures corresponding to the compositions in Table 1.

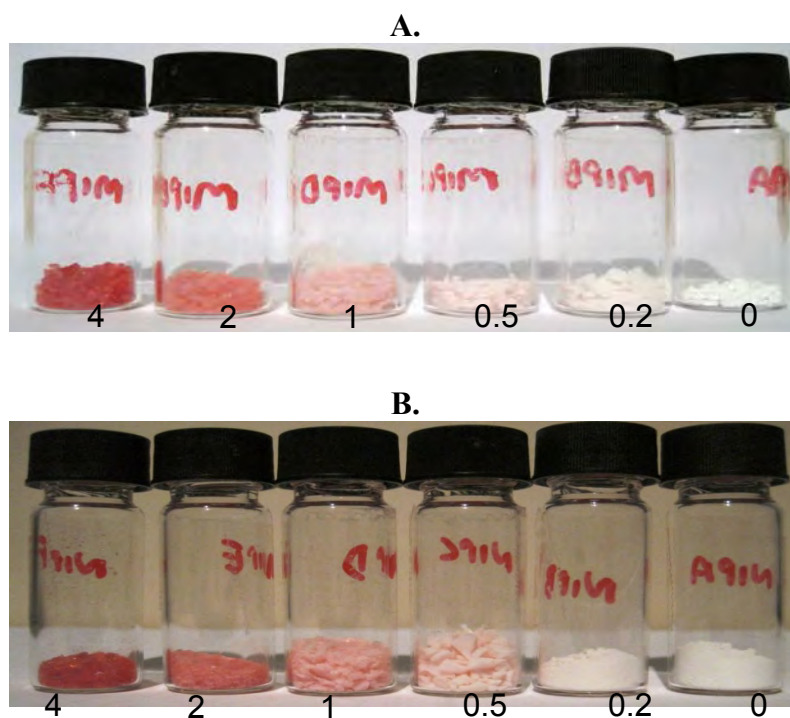


Figure S2. Physical appearance of the imprinted (A) and nonimprinted (B) polymers prepared at the indicated CTA/ABDV ratios.

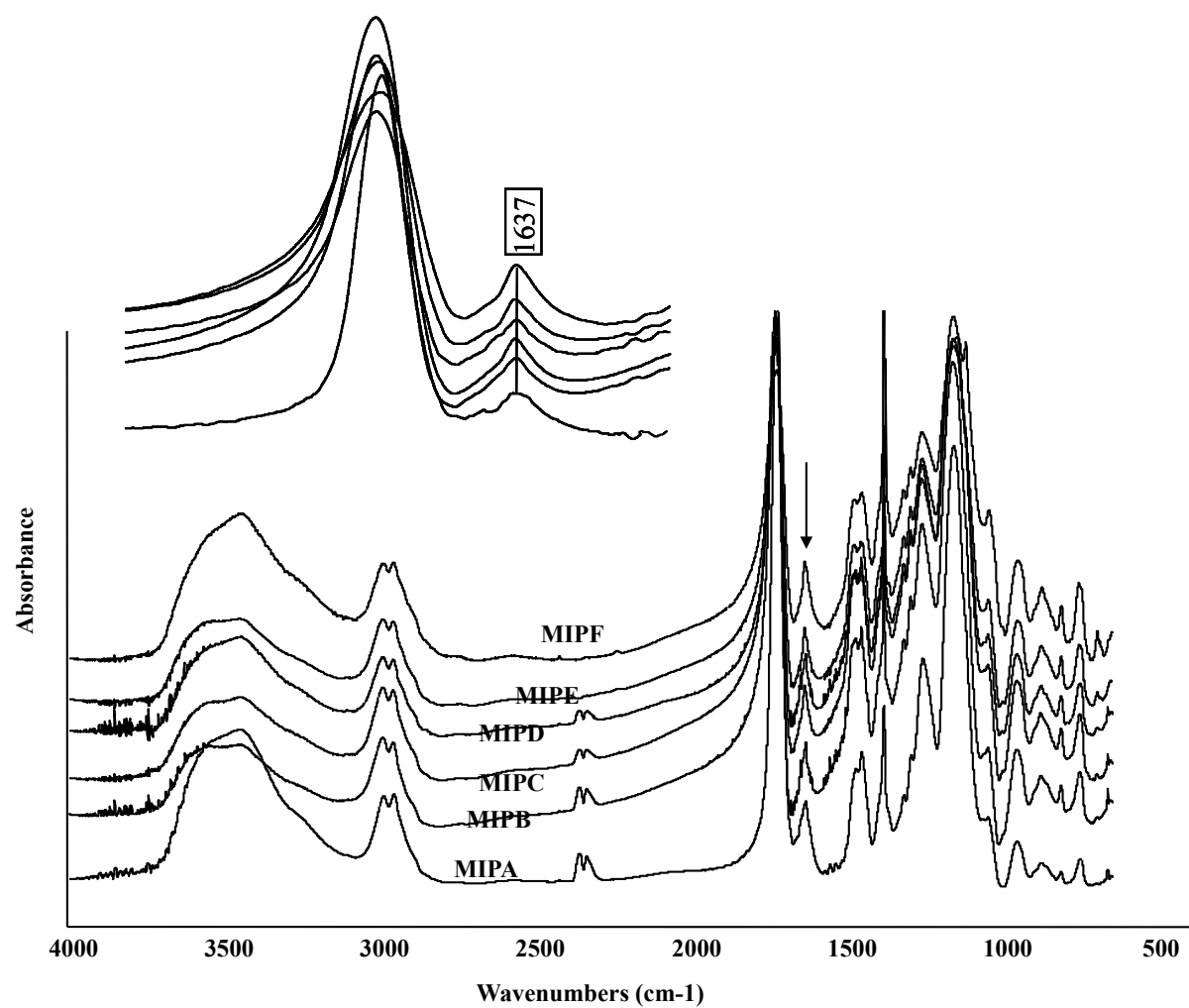


Figure S3. Transmission FTIR spectra (KBr) of the imprinted polymers prepared using different CTA/ABDV ratios.

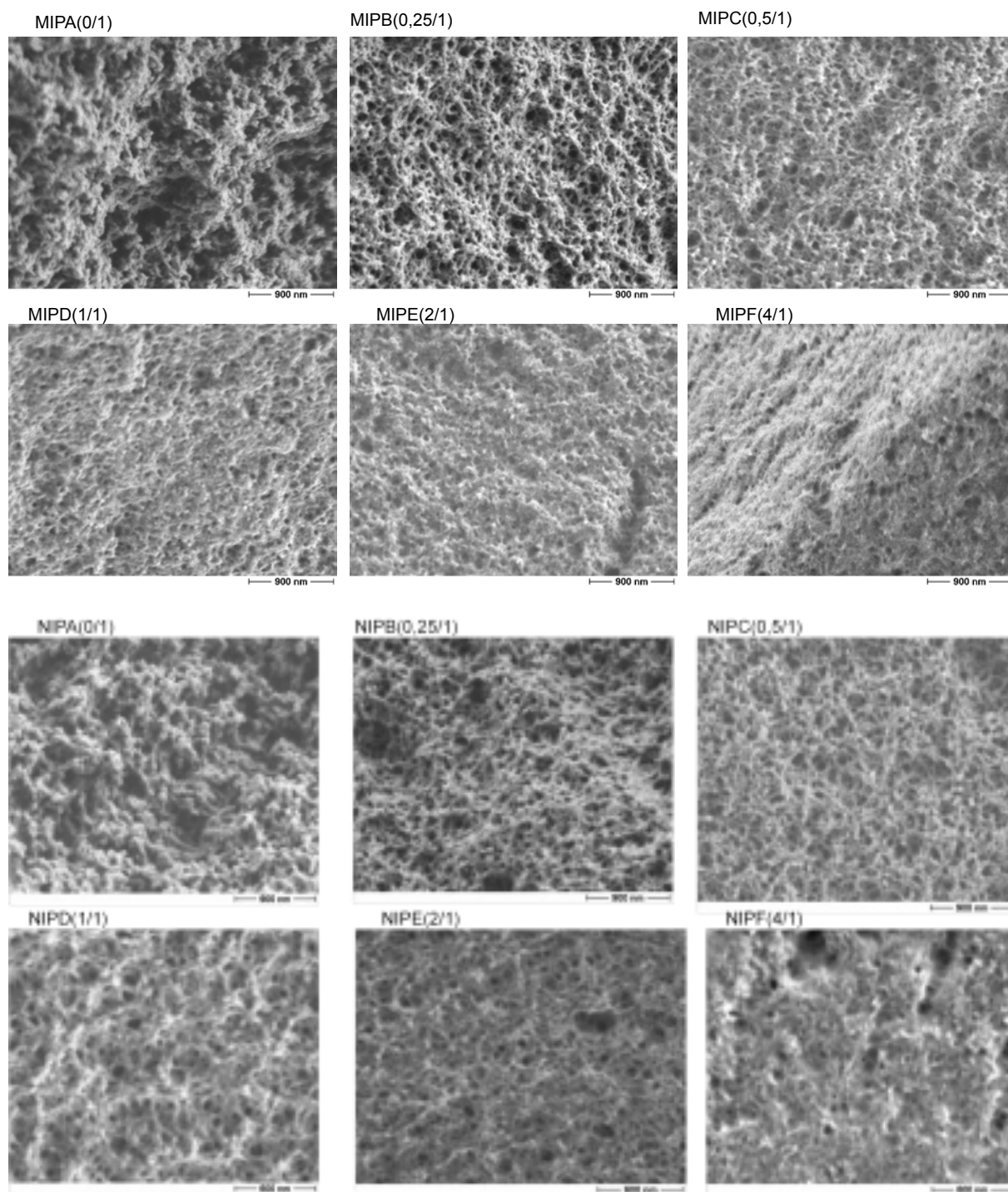


Figure S4. SEM images of the the imprinted (upper two rows) and nonimprinted (lower two rows) polymers prepared using different CTA/ABDV ratios.

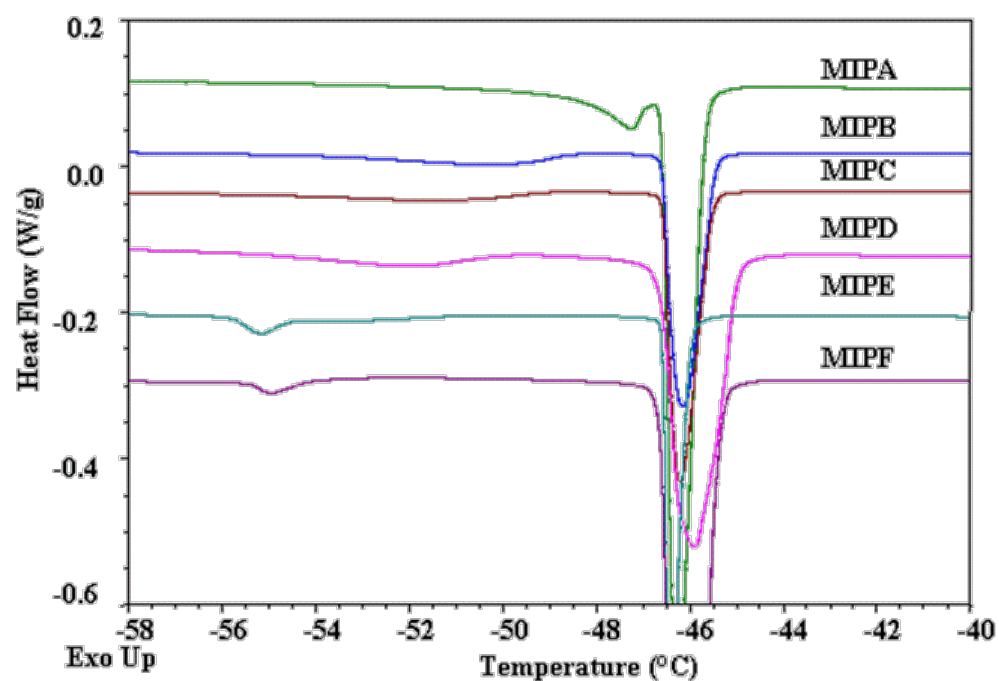


Figure S5. DSC curves for the melting of acetonitrile in the L-PA imprinted polymers. The sample was frozen by rapidly quenching to -60°C . The heating curves shows the pore melt and excess melt.