

Supplementary Material

Preparation and Characterization of Semi-IPN Cryogels Based on Polyacrylamide and Poly(*N,N*-dimethylaminoethyl methacrylate); Functionalization of Carrier with Monochlorotriazinyl- β -cyclodextrin and Release Kinetics of Curcumin

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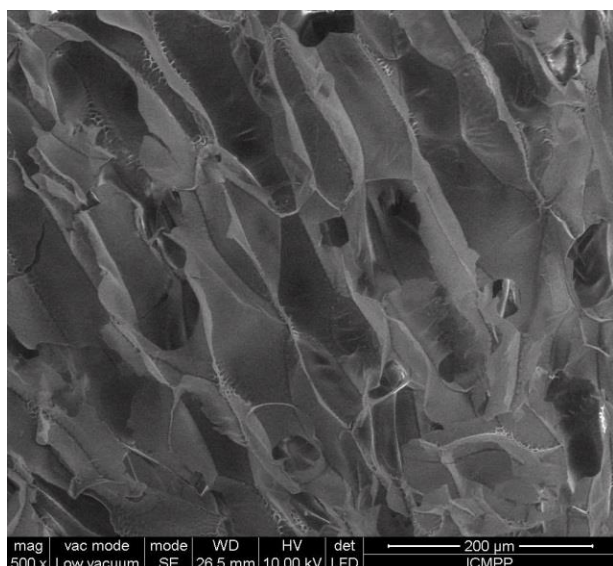
Figure S1. SEM images of two semi-IPN cryogels prepared by unidirectional freezing in liquid nitrogen having PDMAEMA250 (s-IPN250.5) or PDMAEMA85 (s-IPN85.3) entrapped into PAAm network at a cross-linking ratio of 1:40.

Figure S2. FTIR spectra of some semi-IPN cryogels having: (A) PDMAEMA250 (s-IPN250.3 and s-IPN250.4), or (B) PDMAEMA85 entrapped in the PAAm network (sample code is that given in Table 2 in the main text).

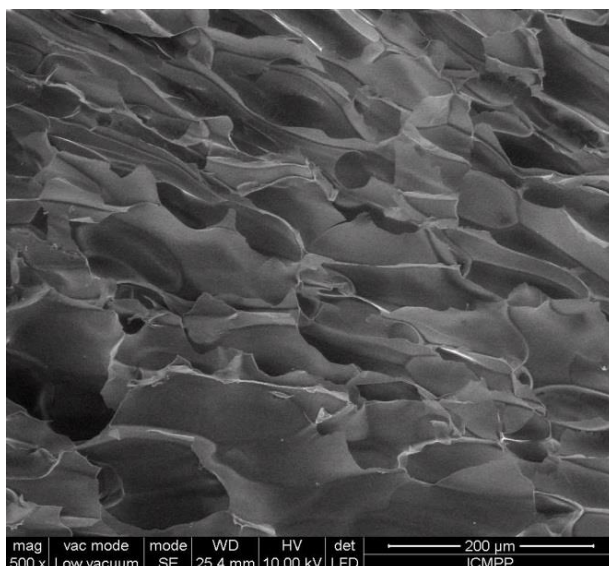
Figure S3. Calibration curve of CCM in ethanol: pH 3 aqueous solution, 50:50 (v/v).

Table S1. Element analysis of two s-IPN composites after the swelling at equilibrium in pH 1.2.

Table S2. The mathematical formula of kinetic models.

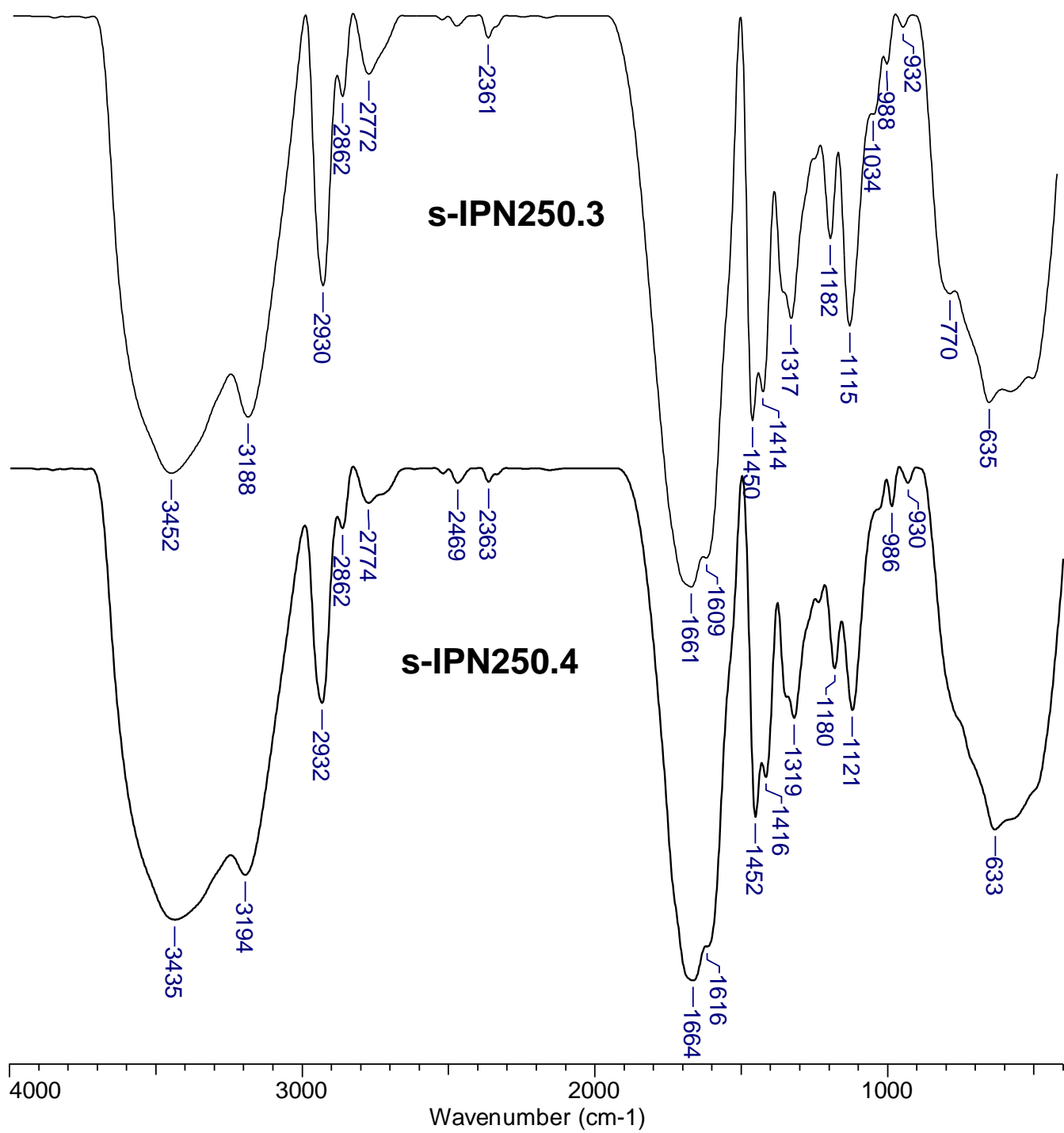


s-IPN250.5



s-IPN85.3

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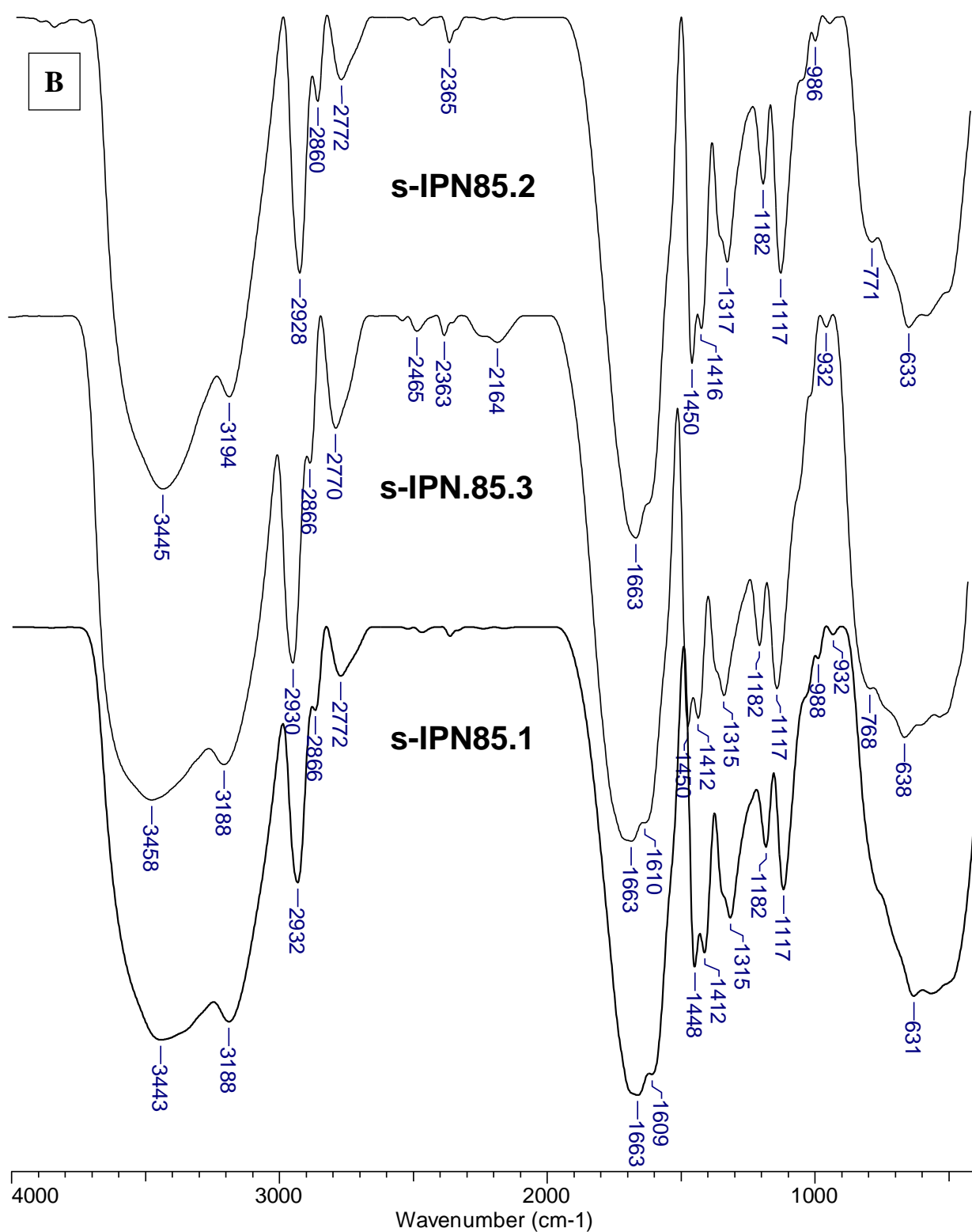


Figure S2. FTIR spectra of some semi-IPN cryogels having: (A) PDMAEMA250 (s-IPN250.3 and s-IPN250.4), or (B) PDMAEMA85 entrapped in the PAAm network (sample code is that given in Table 2 in the main text).

Table S1. Element analysis of two s-IPN composites after the swelling at equilibrium in pH 1.2.

Composite	C %	N %	O %	Cl%
s-IPN250.4	49.93 ± 0.79	21.64 ± 1.02	24.03 ± 1.16	2.97 ± 0.85
s-IPN85.3	51.26 ± 2.64	21.92 ± 1.18	23.48 ± 2.4	1.81 ± 0.68

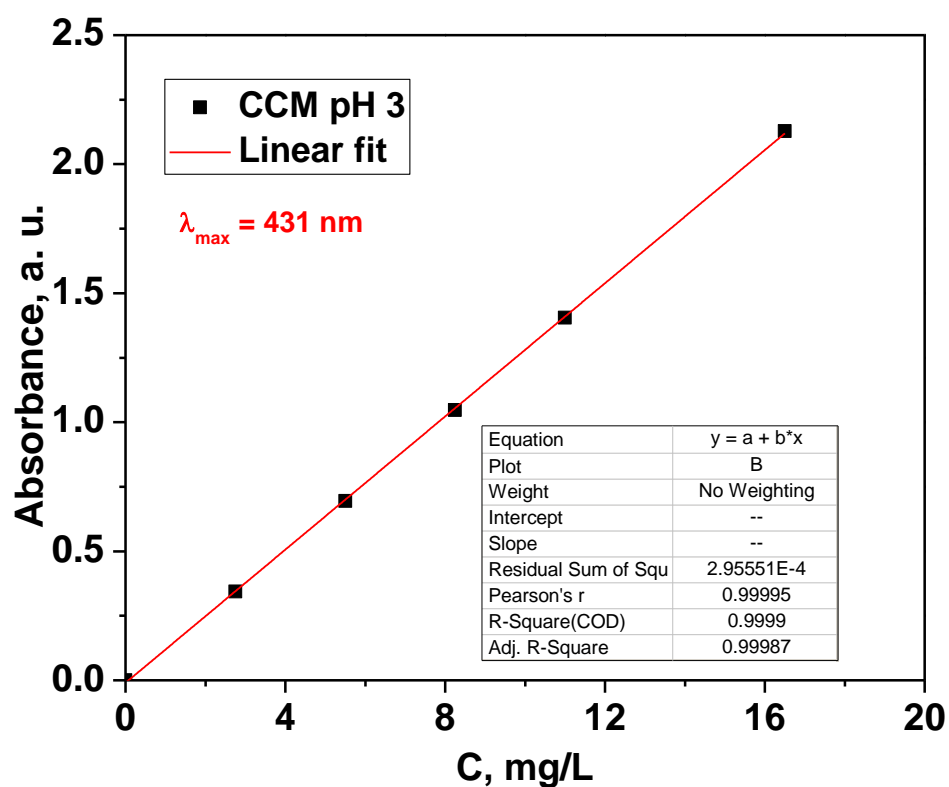


Figure S3. Calibration curve of CCM in ethanol: pH 3 aqueous solution, 50:50 (v/v).

Table S2. The mathematical formula of kinetic models.

Kinetic model	Mathematical formula
First-order	$M_t = M_0 \cdot \exp^{-k_1 \cdot t}$
Higuchi	$M_t = k_t^{1/2}$
Korsmeyer-Pepas	$M_t/M_{\text{inf}} = k_{\text{KP}} \cdot t^n$