**Electronic Supplementary Material (ESI)**

Multilayered curcumin-loaded hydrogel microcarriers with antimicrobial function

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**Figure S2.** FTIR spectra of CUR, CU, CC, and CP.

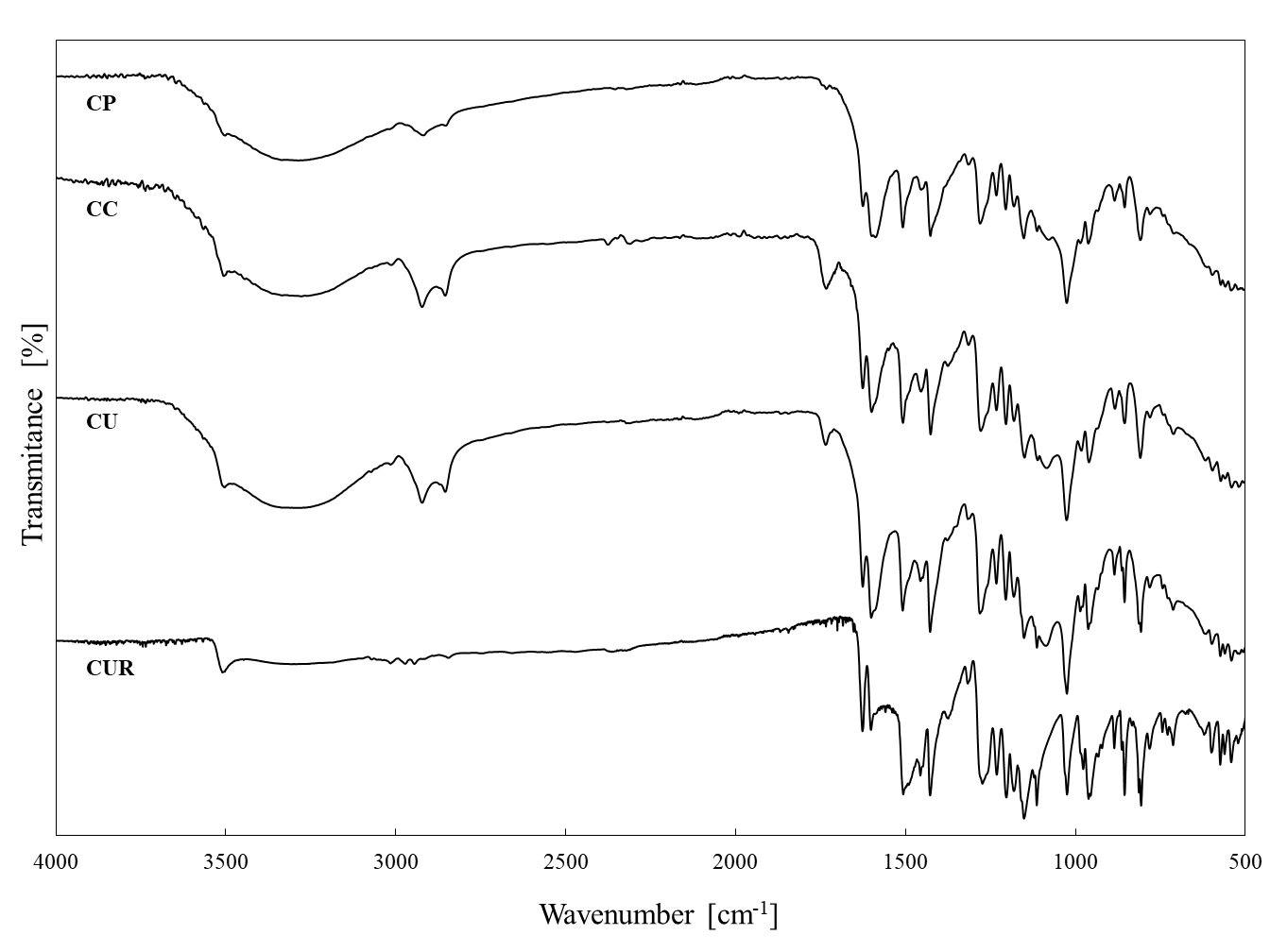
**Figure S3.** Adsorption kinetic measurements of polyelectrolyte multilayers monitored by QCM-D: (**a**) PEI/CUR/ALG/CHIT/**1**; (**b**) PEI/CUR/ALG/CHIT/**2**;   
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**Figure S4.** CUR release profiles from CU (squares), CC (circles), and CP (triangles) microparticles. The lines correspond to the fitting curves of the hybrid model to the payload release profiles.

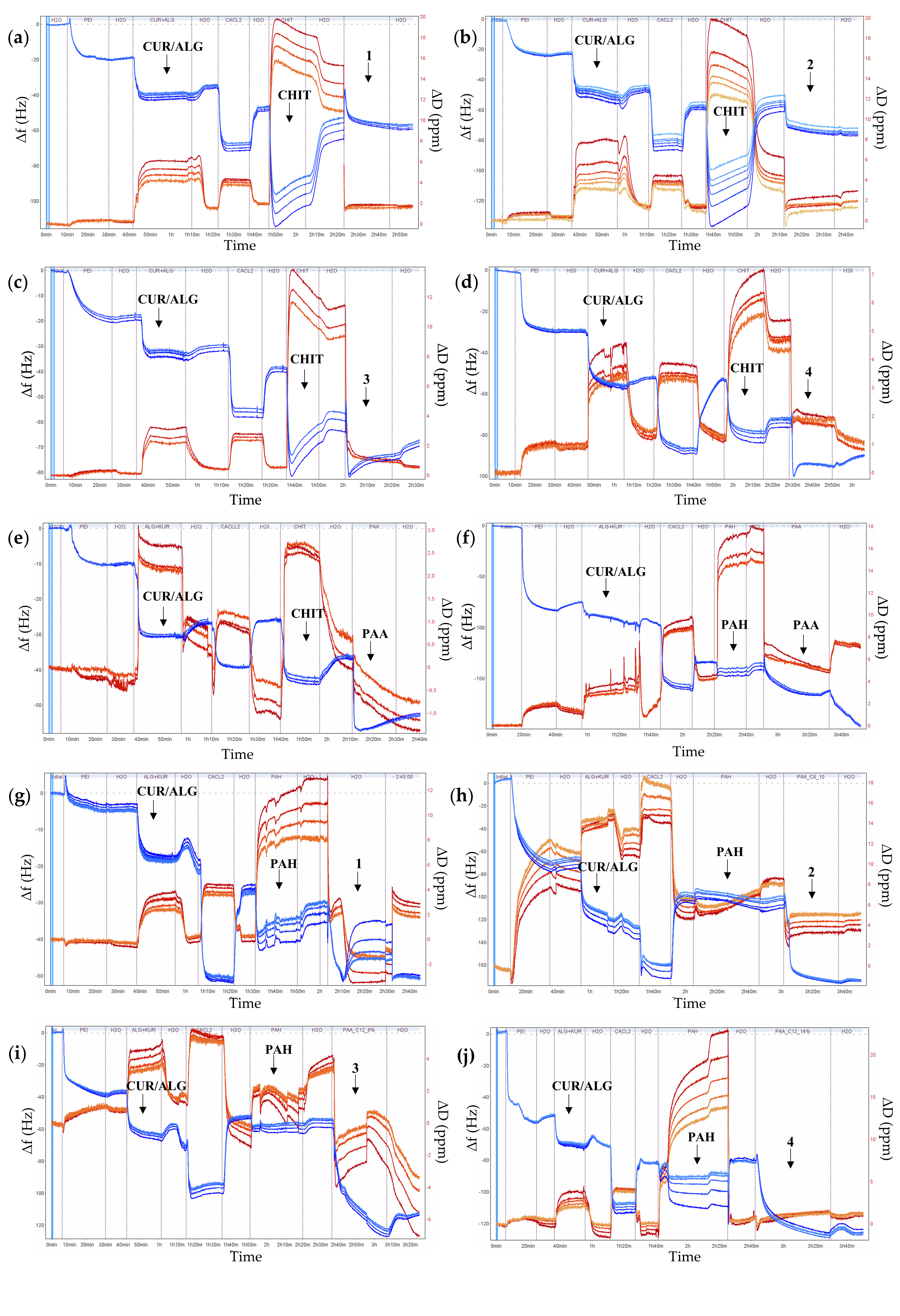
**Table S1.** Film thickness characterization by spectroscopic ellipsometry.



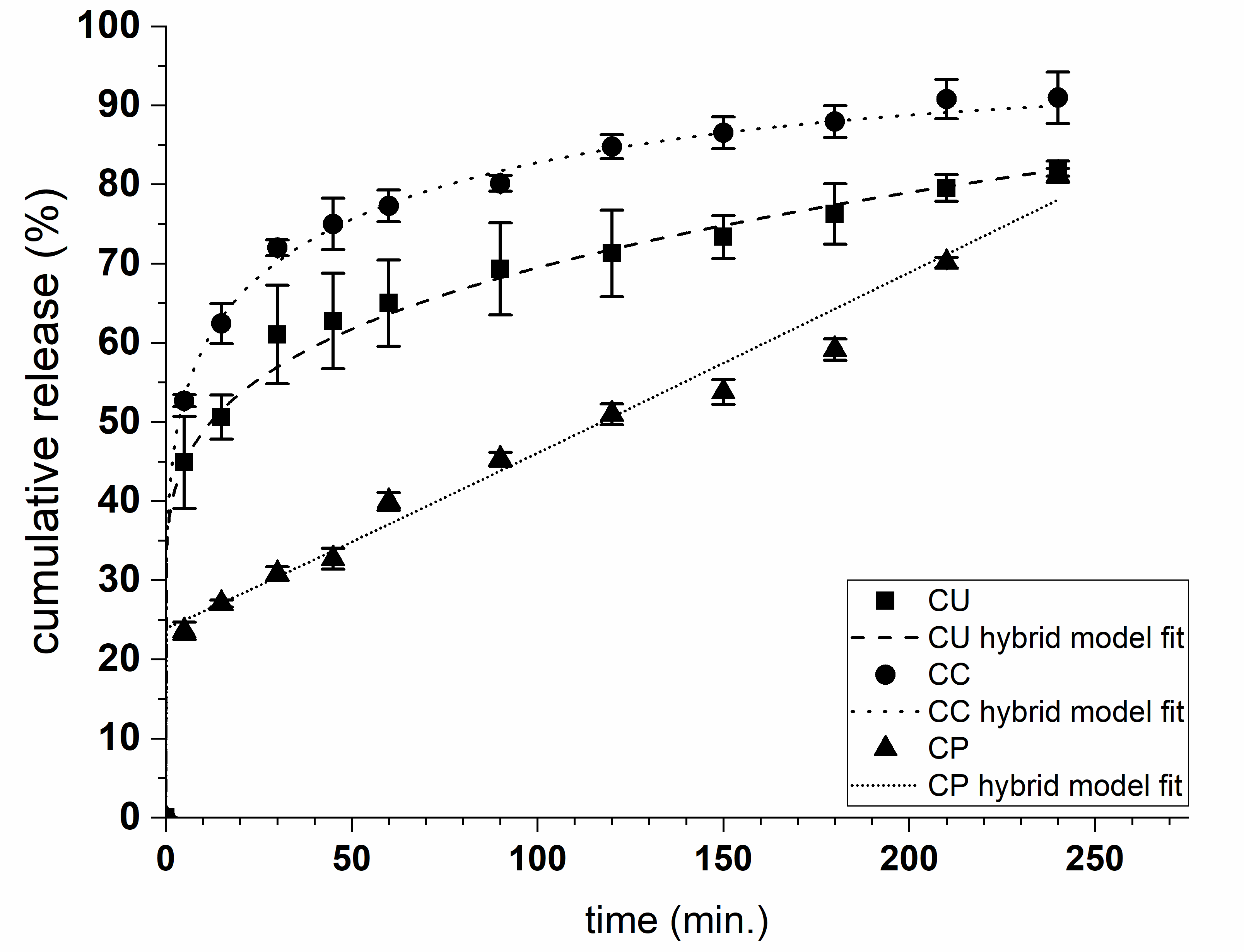
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**Table S1.** Film thickness characterization by spectroscopic ellipsometry.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **PE layer** | **thickness**  **[nm]** |  | **PE layer** | **thickness**  **[nm]** |
|  | CUR/ALG | 1.6±0.1 |  | CUR/ALG | 1.6±0.1 |
| CHIT system | CHIT | 1.4±0.1 | PAH system | PAH | 2.2±0.2 |
| PAA | 0.8±0.2 | PAA | 1.3±0.2 |
| PAA-C(O)O-(CH2)6-N+(CH3)3-8% | 4.7±0.2 | PAA-C(O)O-(CH2)6-N+(CH3)3-8% | 7.2±0.7 |
| PAA-C(O)O-(CH2)6-N+(CH3)3-10% | 6.4±1.4 | PAA-C(O)O-(CH2)6-N+(CH3)3-10% | 7.6±0.3 |
| PAA-C(O)O-(CH2)12-N+(CH3)3-8% | 1.1±0.2 | PAA-C(O)O-(CH2)12-N+(CH3)3-8% | 1.0±0.3 |
| PAA-C(O)O-(CH2)12-N+(CH3)3-14% | 1.0±0.4 | PAA-C(O)O-(CH2)12-N+(CH3)3-14% | 0.8±0.3 |