

Time-Resolved Kinetic Measurement of Microalgae Agglomeration for Screening of Polysaccharides-Based Coagulants/Flocculants

Supplementary Materials

Table S1 Zeta potential and size dimensions of microalgae and polysaccharides

Figure S1 Visible spectra of different microalgae suspensions

(a) *M. aeruginosa*; (b) *S. platensis*; (c) *S. maxima*; (d) *C. vulgaris*; (e) *I. galbana*

Figure S2 Visible spectra of different cationic polysaccharides and BEPS

Figure S3 Weber and Morris kinetic profiles of *M. aeruginosa* and *C. vulgaris* coagulation by cationic polysaccharides

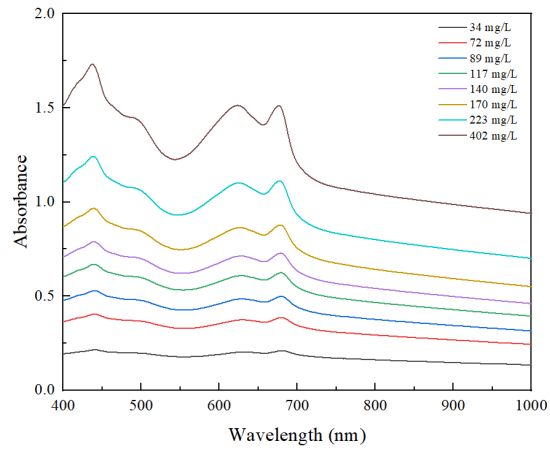
(a) *M. aeruginosa*; (b) *C. vulgaris*

Figure S4 Time-resolved kinetic profiles of microalgae coagulation by AMP, PmEPS and xanthan

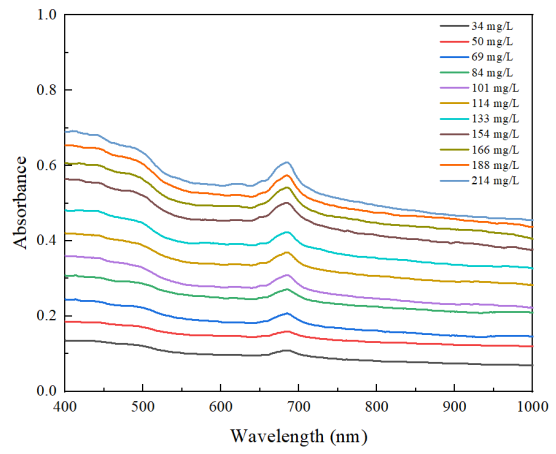
Table S1 Zeta potential and size dimensions of microalgae and polysaccharides

Sample	Zeta potential (mV)	Size dimensions (μm)
<i>M. aeruginosa</i> (OD ₆₈₀ =0.25)	- (10.5 \pm 1.5)	3.33 \pm 0.24
<i>S. platensis</i> (OD ₆₈₀ =0.25)	- (17.1 \pm 2.1)	29.17 \pm 1.51
<i>S. maxima</i> (OD ₆₈₀ =0.25)	- (14.5 \pm 1.2)	33.15 \pm 2.7
<i>C. vulgaris</i> (OD ₆₈₀ =0.25)	- (22.7 \pm 3.5)	3.378 \pm 0.15
<i>I. galbanai</i> (OD ₆₈₀ =0.25)	- (14.8 \pm 1.2)	4.88 \pm 0.06
<i>Agrobacterium</i> mucopolysaccharides (AMP, 100 mg/L)	- (30.6 \pm 1.8)	/
<i>P. mucilaginosus</i> exopolysaccharides (PmEPS, 100 mg/L)	- (29.8 \pm 1.3)	/
Xanthan (100 mg/L)	- (41.3 \pm 1.8)	/
Cationic hydroxyethyl cellulose (CHEC, 10 mg/L)	+ (25.6 \pm 2.6)	/
Chitosan quaternary ammonium (CQA, 10 mg/L)	+ (34.6 \pm 4.8)	/
Cationic guar gum (CGG, 10 mg/L)	+ (16.0 \pm 1.2)	/

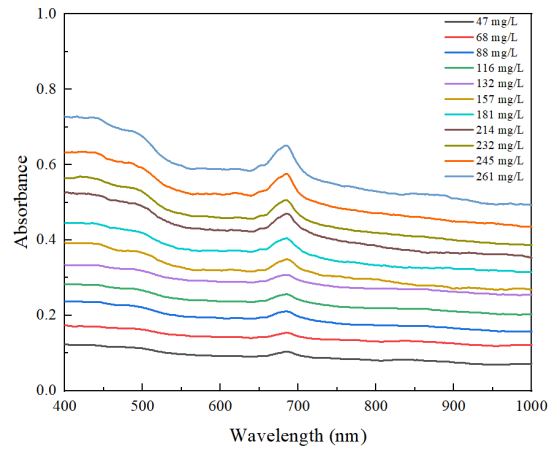
Figure S1 Visible spectra of different microalgae suspensions



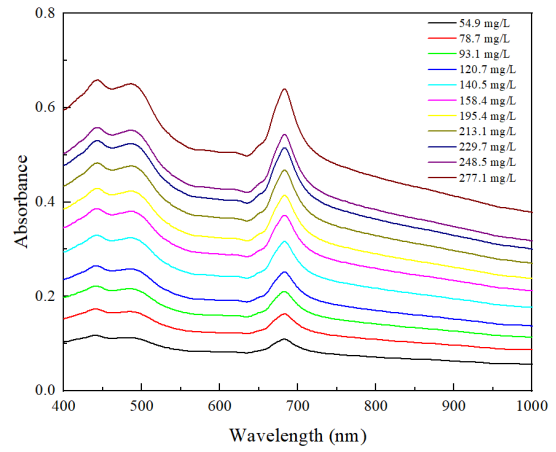
(a) *M. aeruginosa*



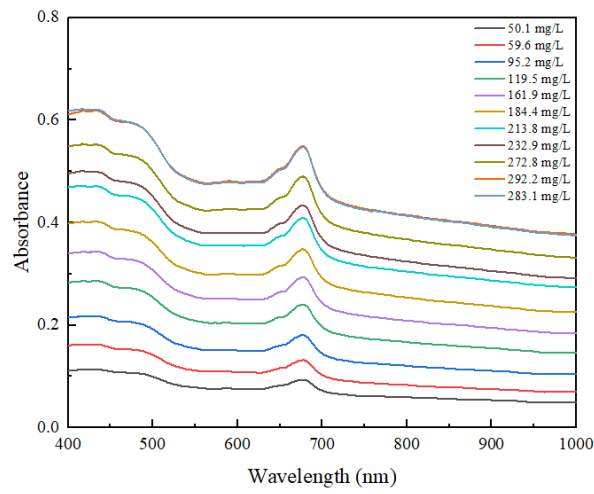
(b) *S. platensis*



(c) *S. maxima*



(d) *C. vulgaris*



(e) *I. galbana*

Figure S2 Visible spectra of different cationic polysaccharides and BEPS

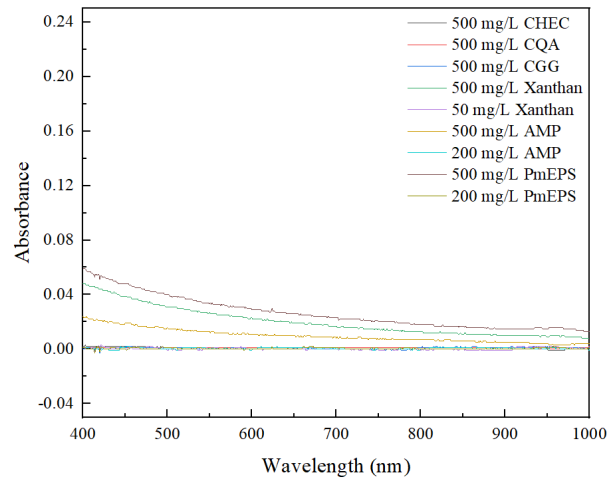
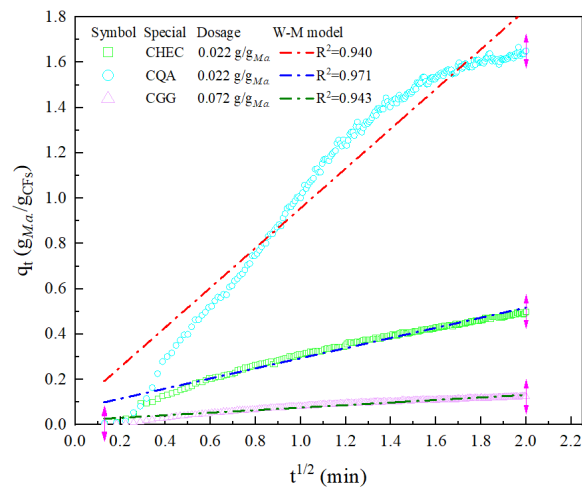
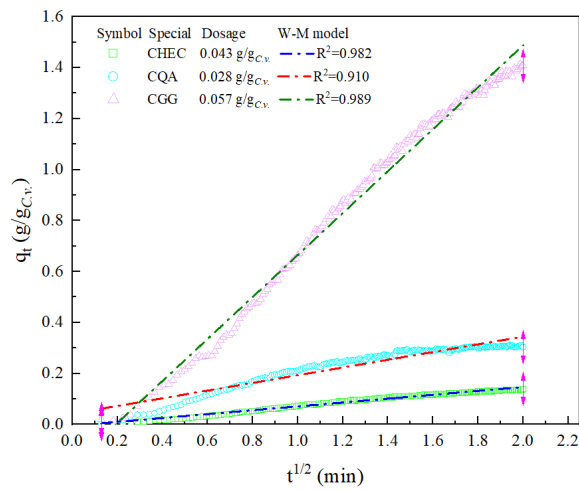


Figure S3 Weber and Morris kinetic profiles of *M. aeruginosa* and *C. vulgaris* coagulation by cationic polysaccharides



(a) *M. aeruginosa*



(b) *C. vulgaris*

Figure S4 Time-resolved kinetic profiles of microalgae coagulation by AMP, PmEPS and xanthan

