Supplementary material for the paper:

Preparation and study of physicochemical and adsorption properties of alginate composites

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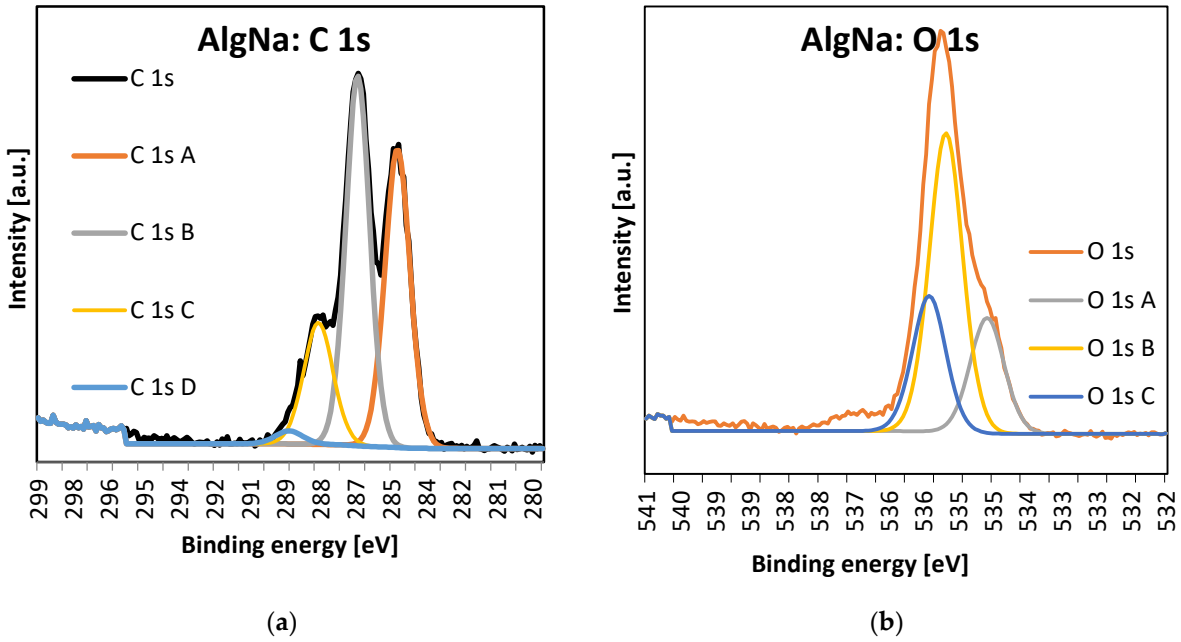
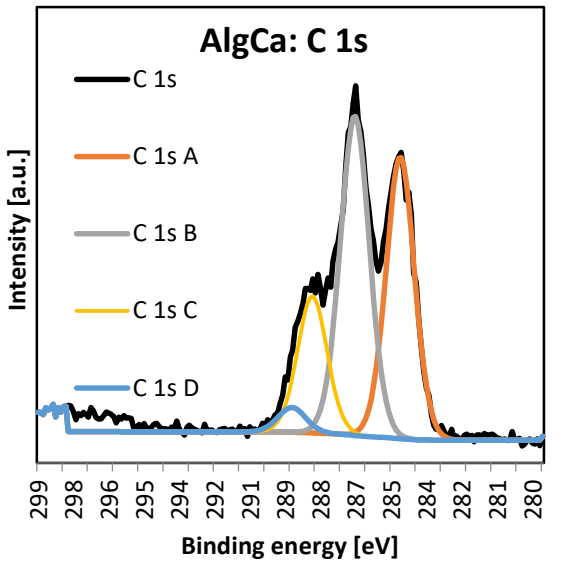
3.3. XPS

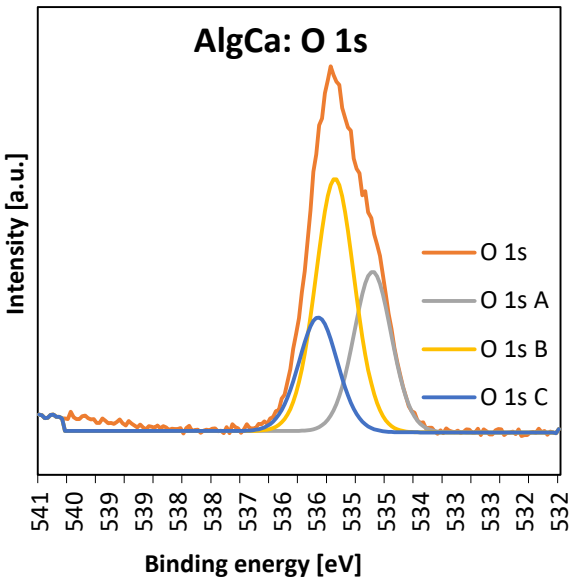


(**a**) (**b**)

Figure S1. Deconvoluted C 1s and O 1s high resolution core-level XPS spectra AlgNa.



(a)



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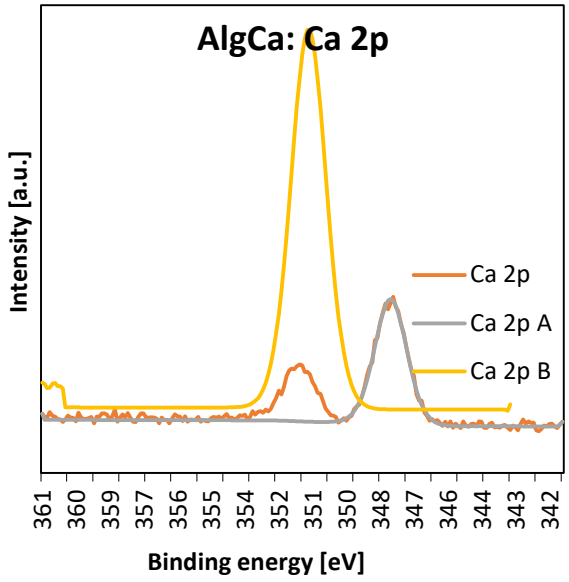
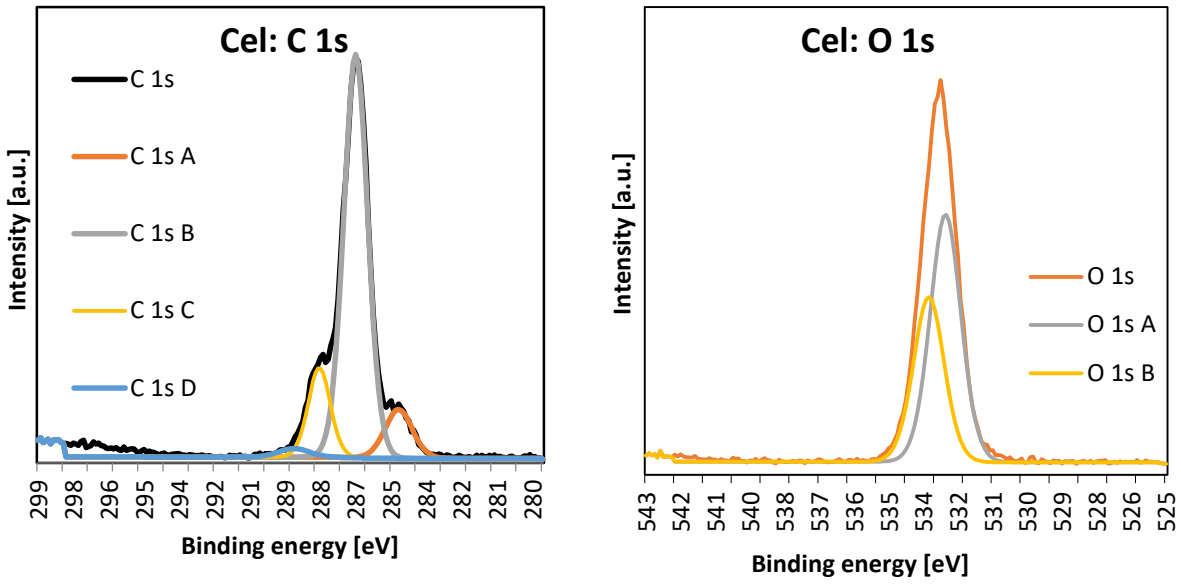


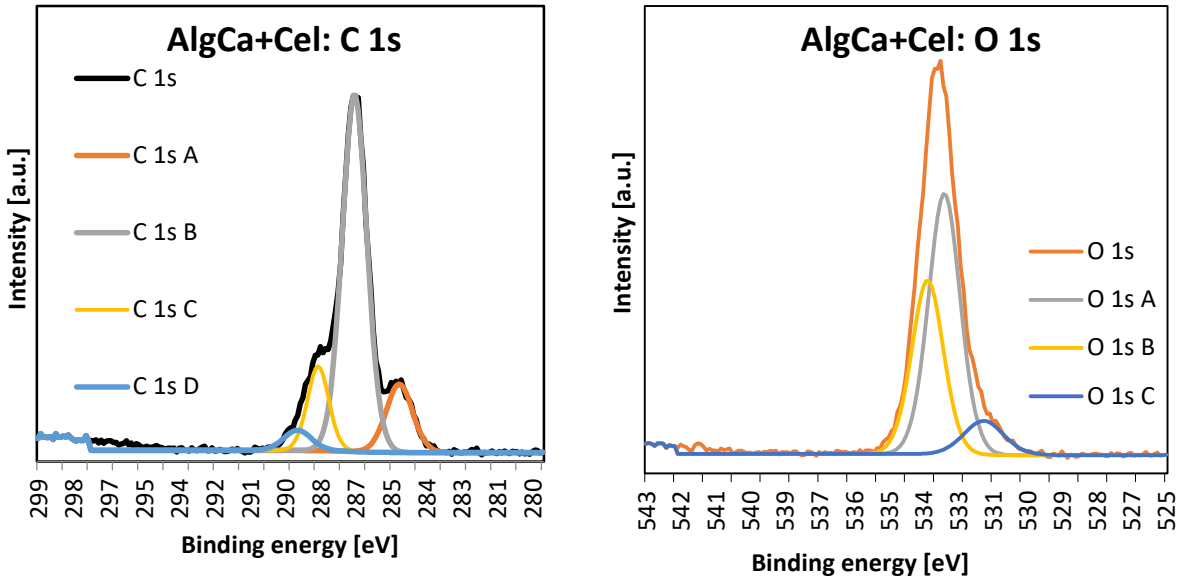
(c)

Figure S2. Deconvoluted C 1s, O 1s and Ca 2p high resolution core-level XPS spectra AlgCa.

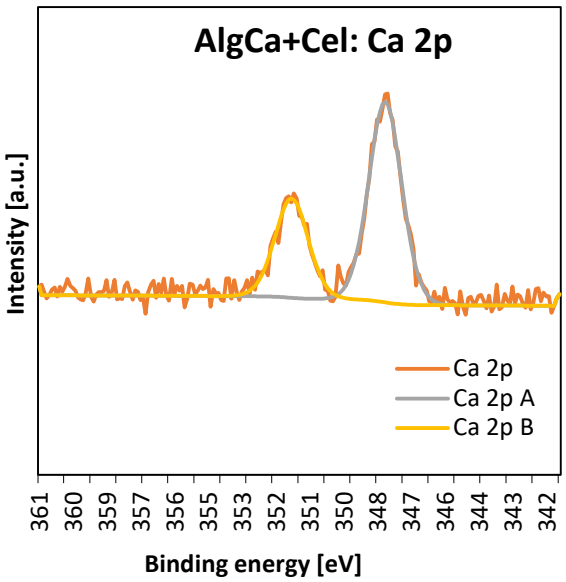


(**a**) (**b**)

Figure S3. Deconvoluted C 1s and O 1s high resolution core-level XPS spectra Cel.

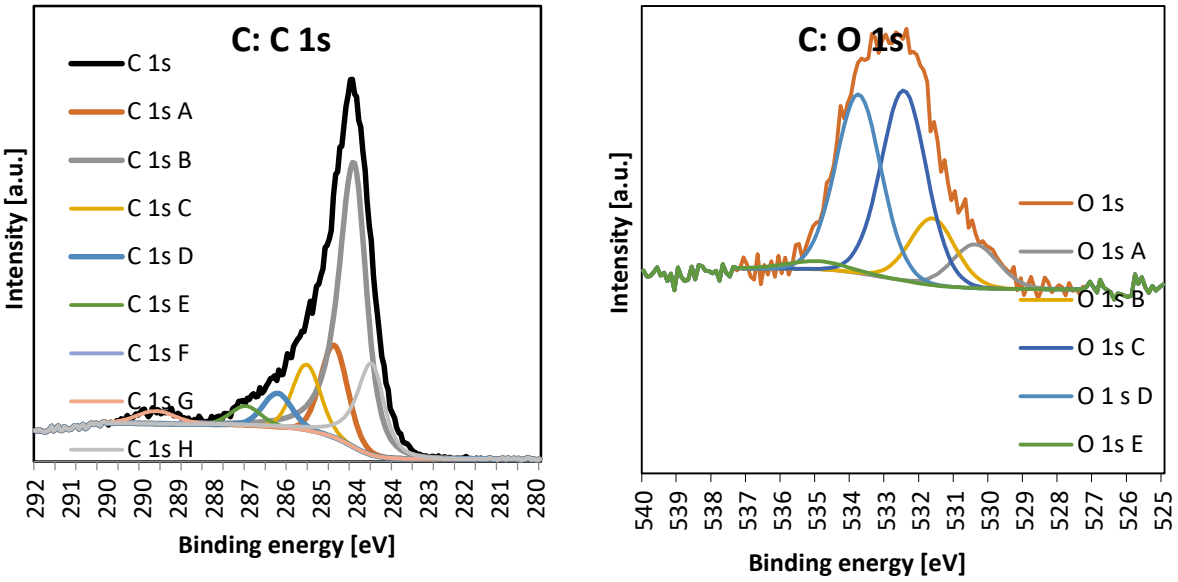


(**a**) (**b**)



(**c**)

Figure S4. Deconvoluted C 1s, O 1s and Ca 2p high resolution core-level XPS spectra AlgCa+Cel.



(**a**) (**b**)

Figure S5. Deconvoluted C 1s and O 1s high resolution core-level XPS spectra C.

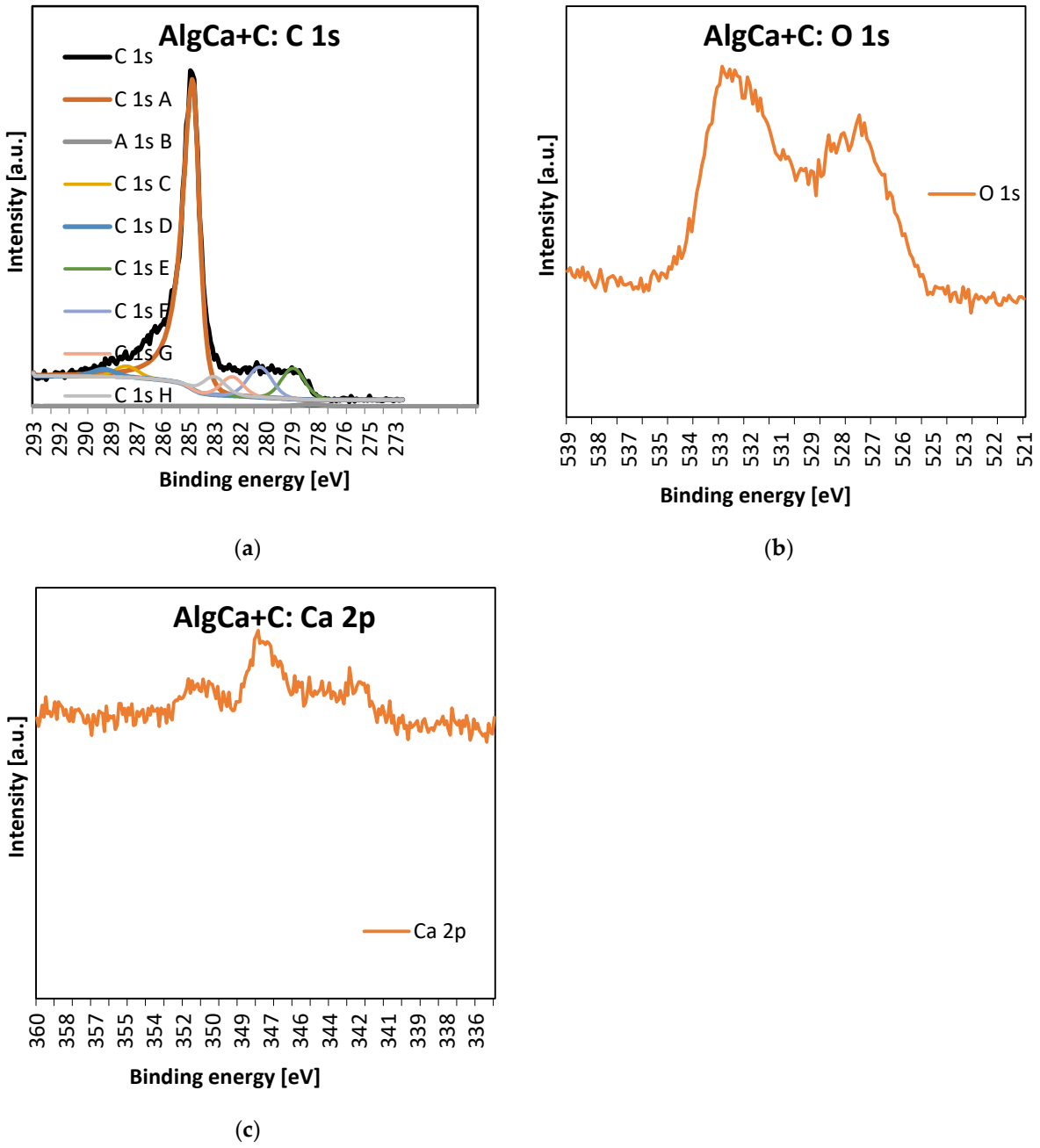


Figure S6. Deconvoluted C 1s, O 1s and Ca 2p high resolution core-level XPS spectra AlgCa+C.

3.4. Thermal analysis

Table S1. The thermal decomposition data of AlgNa, AlgCa, Cel, C, AlgCa+Cel and AlgCa+C.

Sample	TG			DTG	DSC
	ΔT [°C]	Mass Loss [%]	Total Mass Loss [%]	T_{min} [°C]	endo/exo
AlgCa	30–200	11.23	79.45	53.3	endo
	200–950	68.22		200.3	exo
					exo

				295.3	exo
				540.3	exo
				710.3	
C	30–200	1.82	91.48	94.34	endo
	200–950	89.66		654.34	exo
				714.34	exo
Cel	30–200	0.95	97.7	96.48	endo
	200–950	96.75		336.48	endo
				501.48	exo
AlgCa+C	30–200	4.31	91.47	89.52	endo
				259.52	exo
	200–950	87.16		414.52	exo
				449.52	exo
AlgCa+Cel	30–200	3.79	94.51	99.79	endo
				294.79	exo
	200–950	90.72		444.79	exo
				669.79	exo