

Electronic Supplementary Information (ESI)

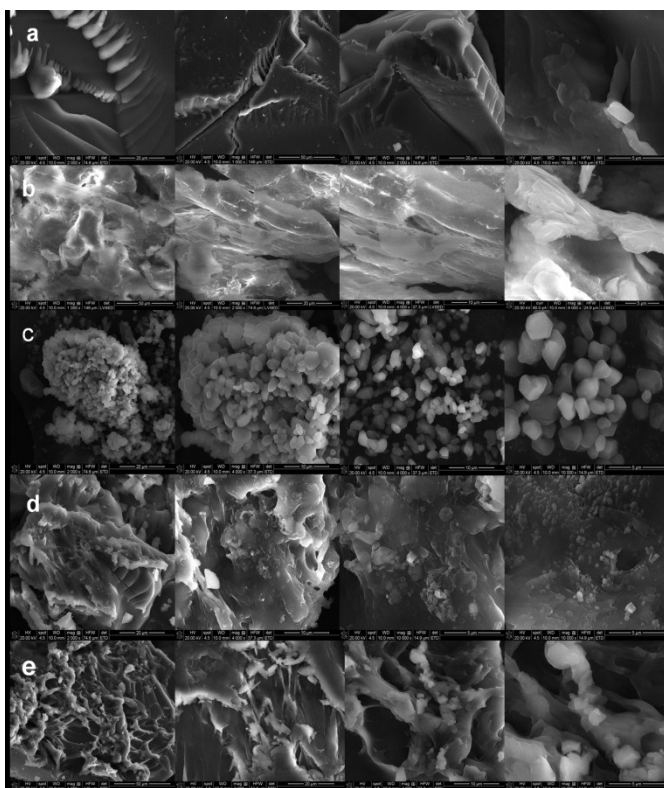


Figure S1 Morphology of raw materials, control and composite xerogels, after conventional drying, at various scales, in the following order: (a) PAA control xerogel; (b) lyophilized BC; (c) SF; (d) control xerogels with fertilizer, LF-PAA; and (e) composite xerogels with fertilizer, LF-BC-PAA.

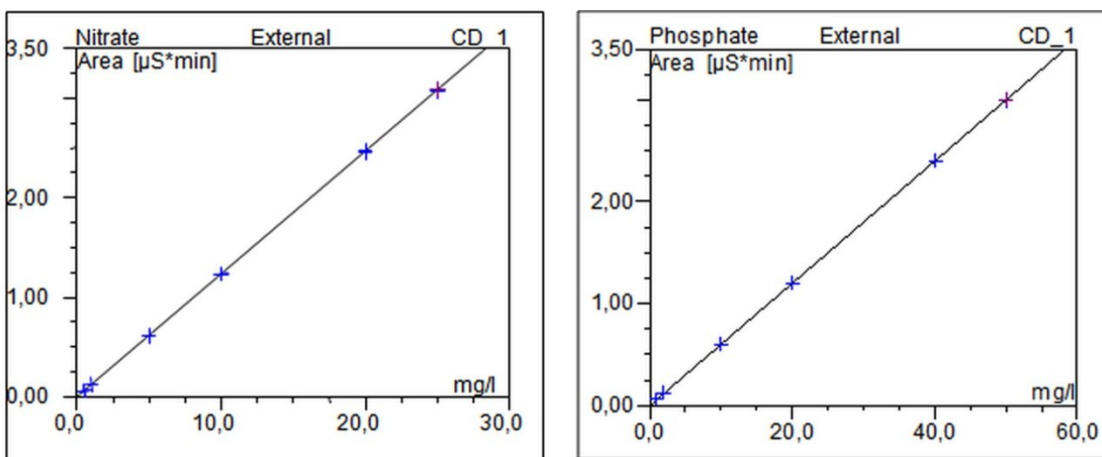


Figure S2. Calibration for nitrate and phosphate anions

Table S1. Ion chromatography data of LF release in water for control and composite hydrogels

Control Hydrogel	NO₃⁻ mg/L	PO₄³⁻ mg/L	Composite Hydrogel	NO₃⁻ mg/L	PO₄³⁻ mg/L
15-LF-PAA (1h)	58.88	5.32	15-LF-BC-PAA (1h)	21.27	1,16
15-LF-PAA (2h)	58.48	5.12	15-LF-BC-PAA (2h)	47.78	2.74
15-LF-PAA (3h)	58.23	5.62	15-LF-BC-PAA (3h)	47.79	2.88
15-LF-PAA (1 day)	59.02	5.30	15-LF-BC-PAA (1 day)	47.85	4.56
15-LF-PAA (2 days)	59.10	5.42	15-LF-BC-PAA (2 days)	46.86	4.67
15-LF-PAA (3 days)	59.01	5.52	15-LF-BC-PAA (3 days)	46.41	4.68