

Magnetite-sepiolite nanoarchitectonics for improving zein-based bionanocomposite foams

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Electronic Supplementary Information

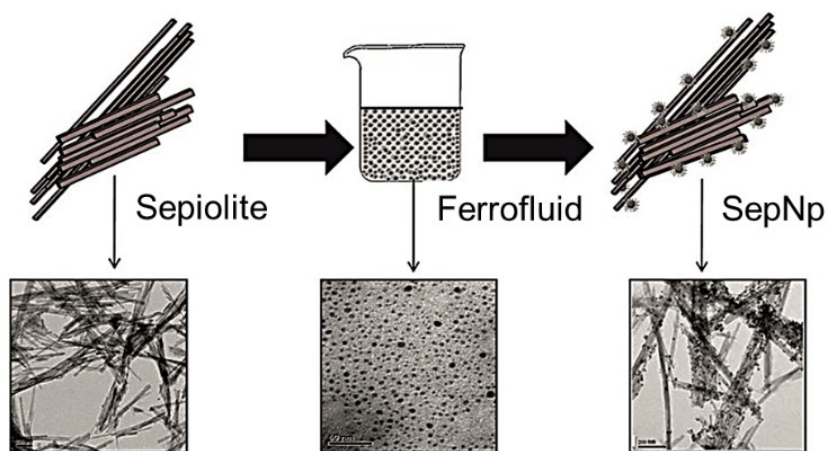


Fig. S1 Scheme of the general procedure of preparation of the SepNp.

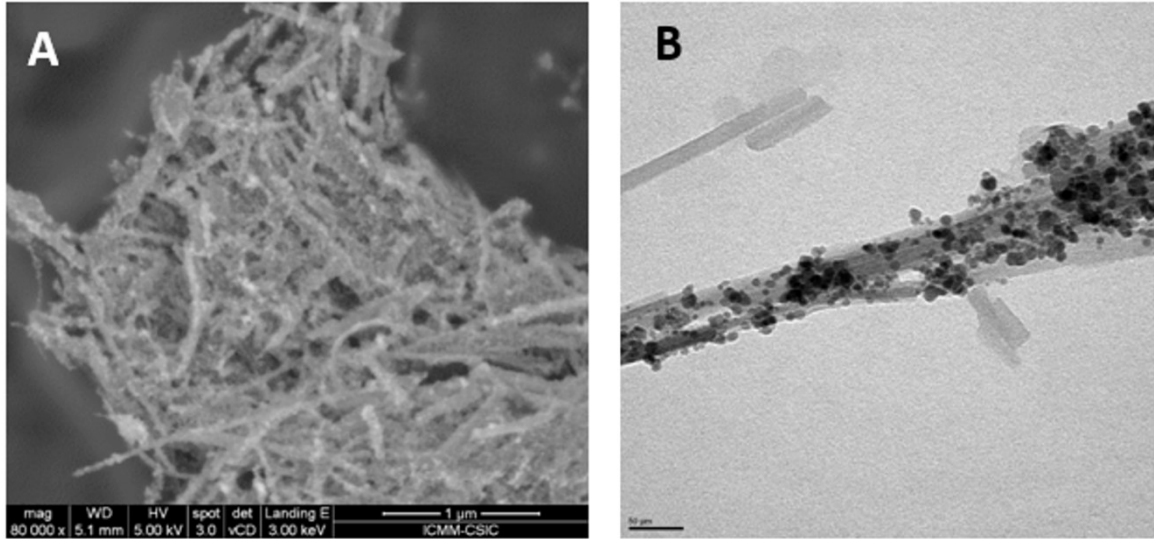


Fig. S2 Images of the SepNp nanoarchitecture observed by FE-SEM (A) and TEM (B).

Scale in the TEM image corresponds to 50 nm.

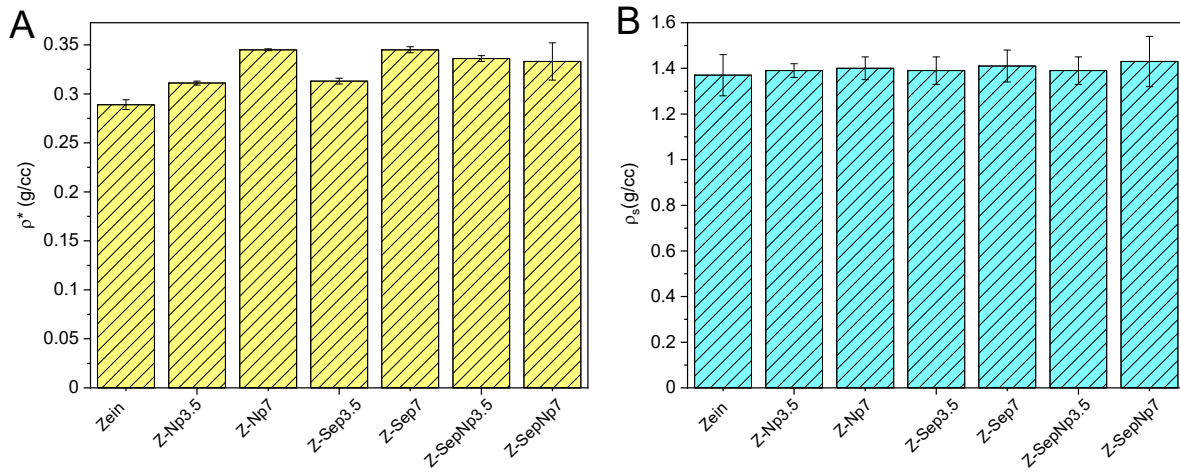


Fig. S3 (A) Apparent density (ρ^*) and (B) true density (ρ_s) values as a function of the amount of different fillers in the starting zein pellets.

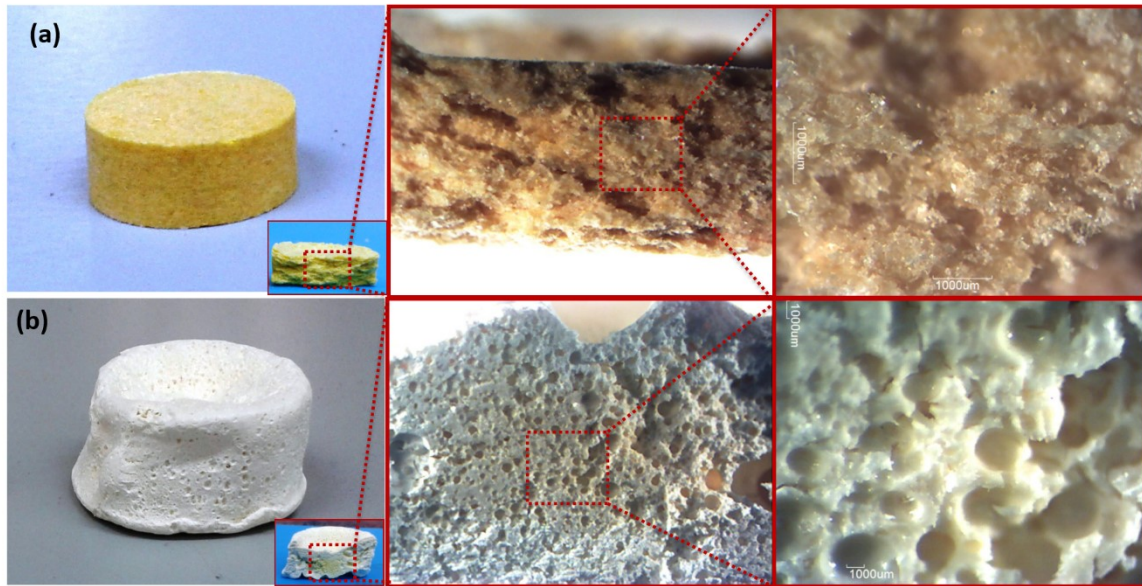


Fig. S4 Zein pellets (a) before and (b) after the foaming process.

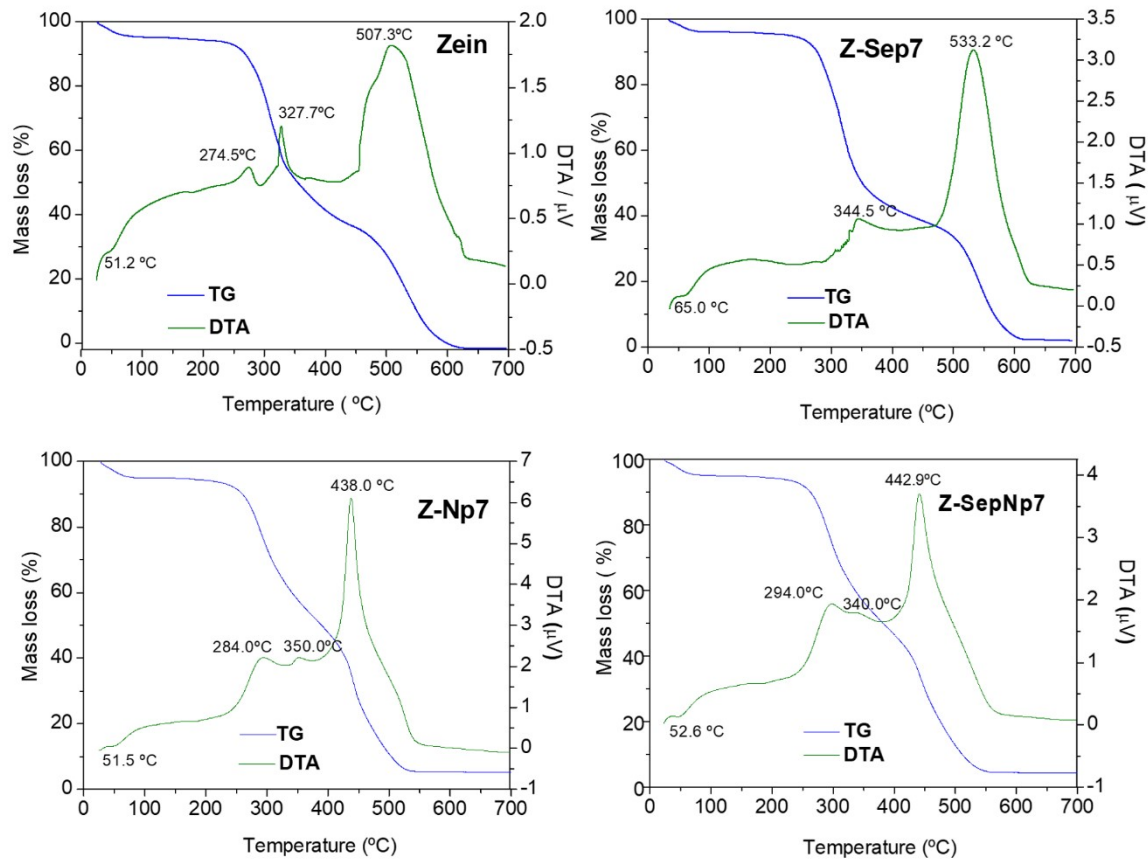


Fig. S5 TG and DTA curves (under air flow) of foams based on pure zein and zein bionanocomposite foams loaded with 7% of Np, Sep and SepNp.

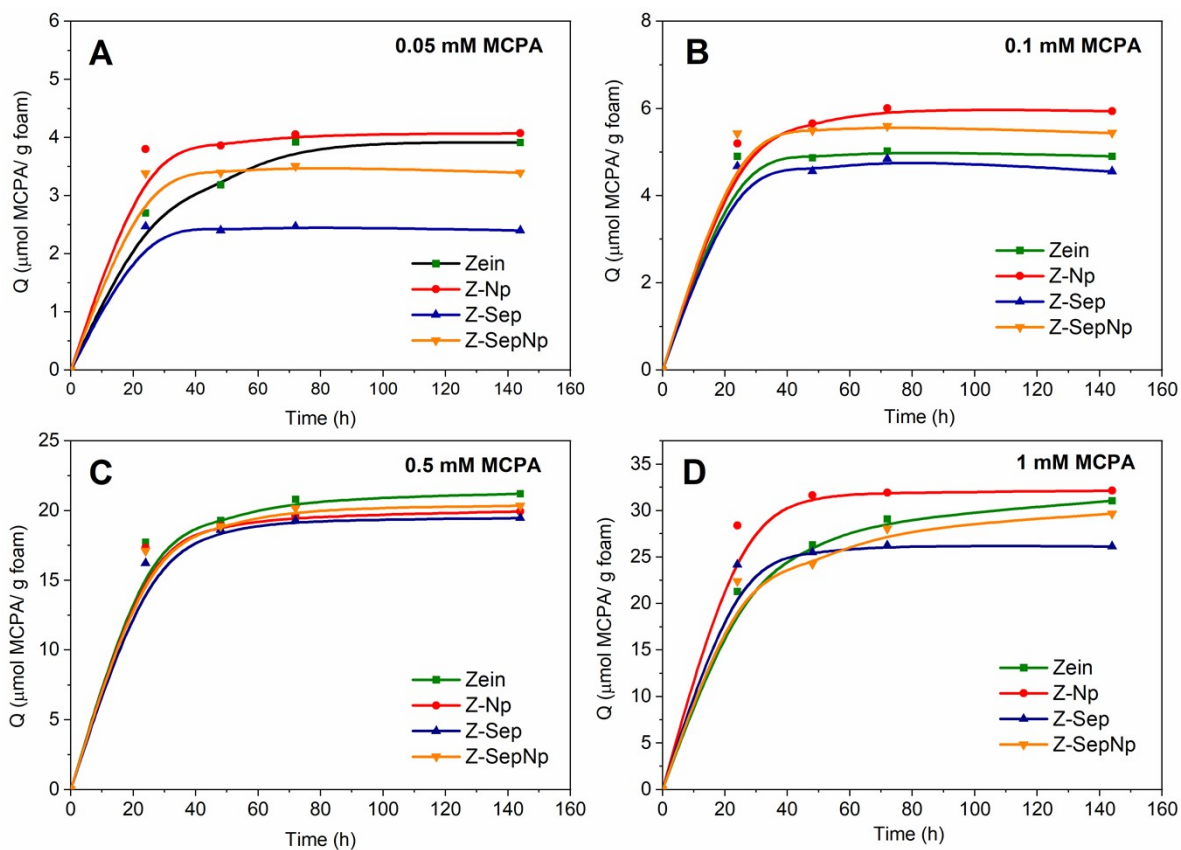


Fig. S6 Kinetic study of MCPA adsorption of various foams from initial herbicide concentrations of (A) 0.05, (B) 0.1, (C) 0.5 and (D) 1 mmol/L. Experiment performed using 20 mL of MCPA solution and 50 mg of foam.