

# **Alendronate-functionalized poly(amido amine) cryogels of high-toughness for biomedical applications**

Melek Naz Guven <sup>a</sup>, Gozde Demirci <sup>b</sup>, Seckin Altuncu <sup>a</sup>, Umit Gulyuz <sup>c,d</sup>,  
Oguz Okay <sup>c</sup>, Havva Yagci Acar <sup>b</sup>, Duygu Avcı <sup>a</sup>

<sup>a</sup>Department of Chemistry, Bogazici University, 34342 Bebek, Istanbul, Turkey

<sup>b</sup>Department of Chemistry, Koc University, 34450 Sariyer, Istanbul, Turkey

<sup>c</sup>Department of Chemistry, Istanbul Technical University, Maslak, 34469 Istanbul, Turkey

<sup>d</sup>Department of Chemistry and Chemical Processing Technologies, Kirklareli University,  
Luleburgaz 39750, Kirklareli, Turkey

## **Supplementary data**

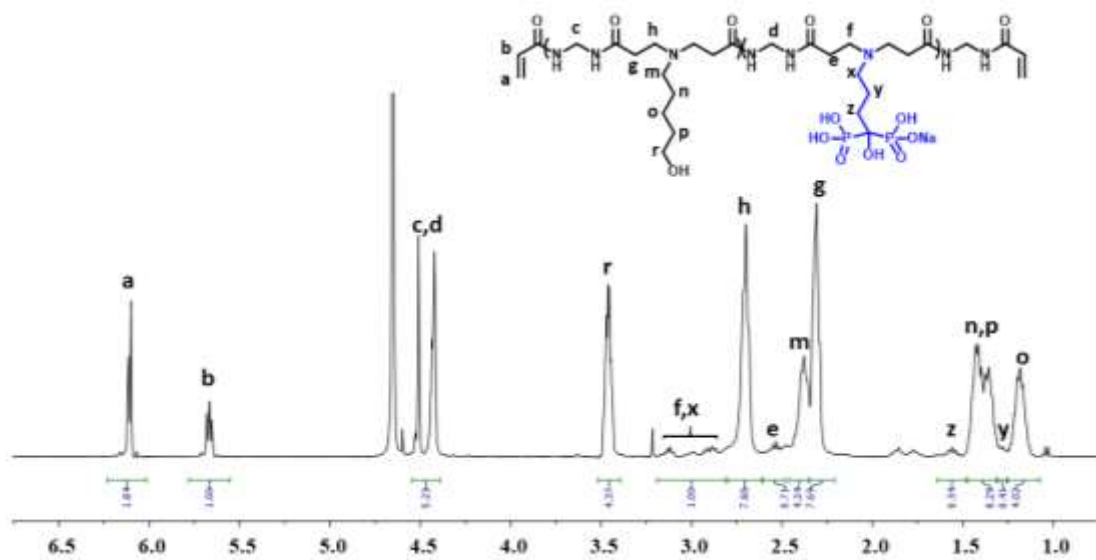


Figure S1. The integrated <sup>1</sup>H NMR spectrum of MPAA1 in D<sub>2</sub>O.



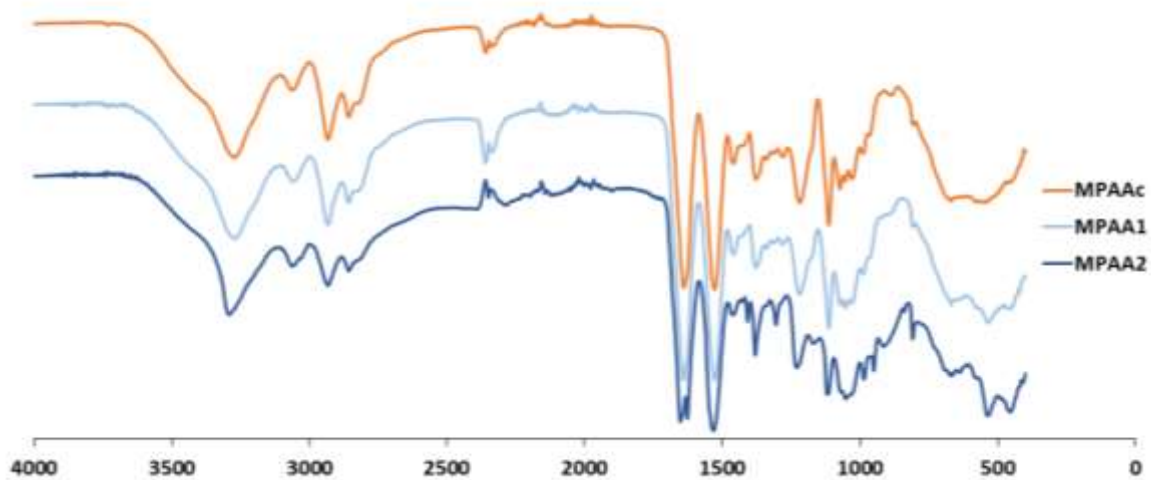


Figure S3. FTIR spectra of MPAAc, MPAA1, MPAA2 macromers.

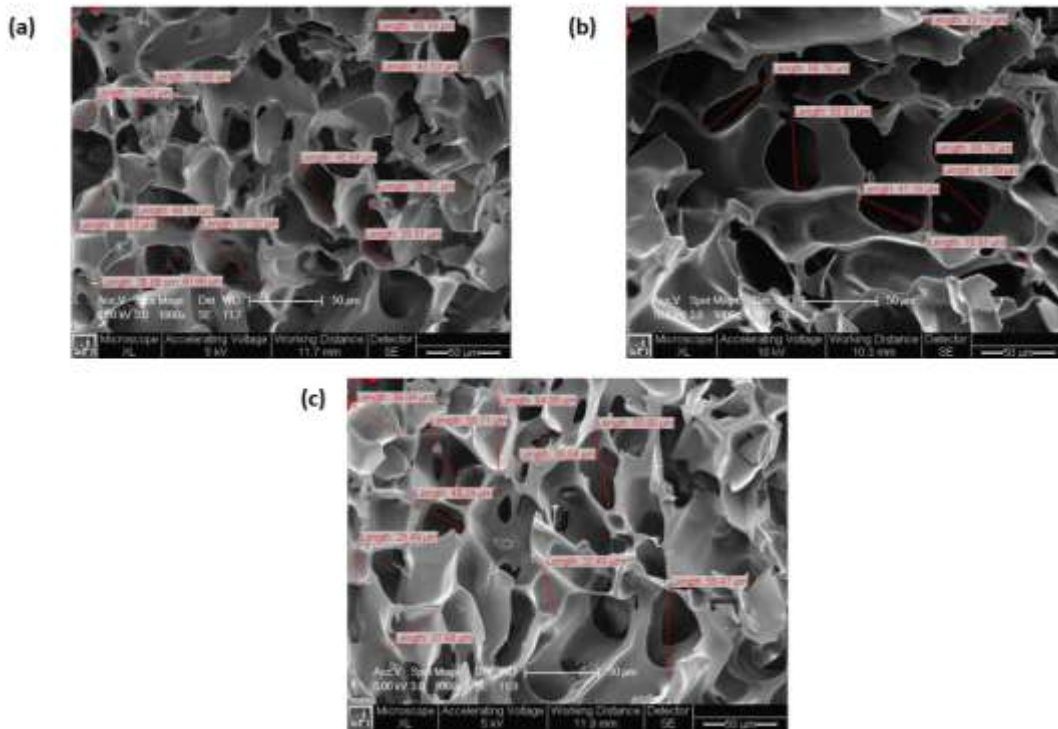


Figure S4. SEM images of (a) PAAc, (b) PAA1 and (c) PAA2 cryogels.

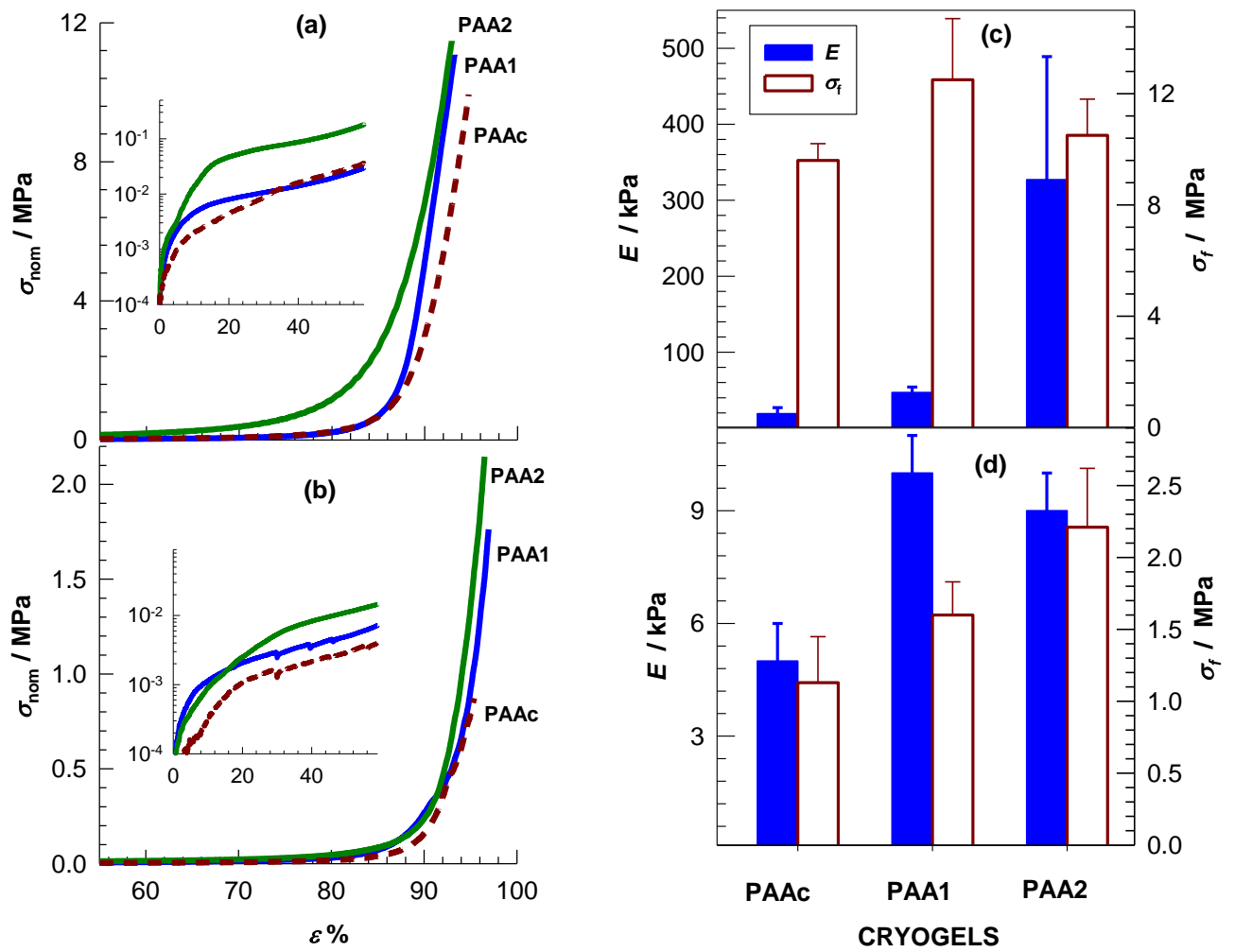


Figure S5. Stress – strain curves (a, b) and the mechanical parameters  $E$  and  $\sigma_f$  (c, d) of PAAc, PAA1, and PAA2 cryogels in dry (a, c) and swollen states (b, d). The inset in (a) and (b) are zoom in to the data below 50 % strain.

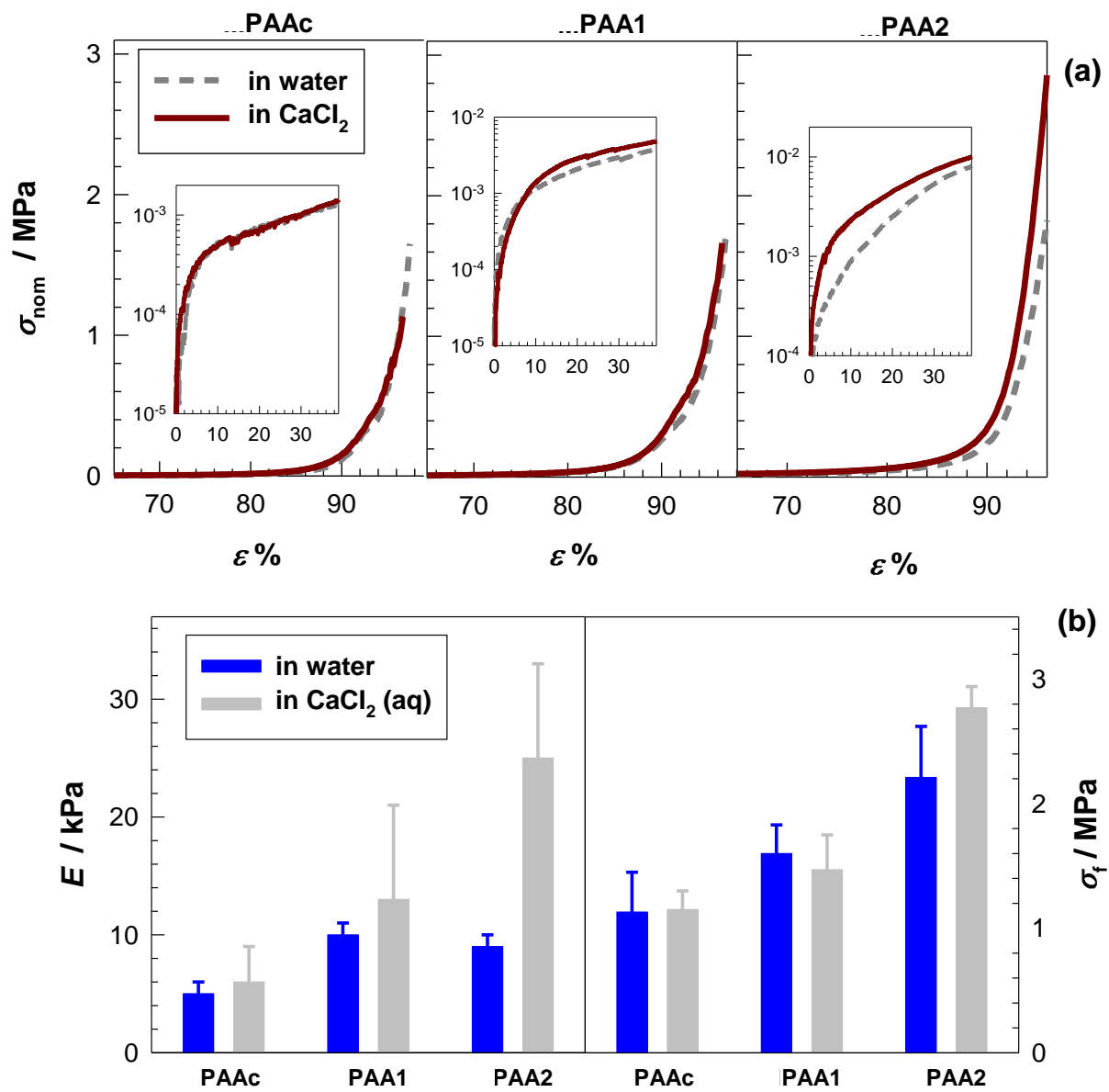


Figure S6. Stress – strain curves (a) and the mechanical parameters  $E$  and  $\sigma_f$  (b) of PAAc, PAA1, and PAA2 cryogels before and after immersion in aqueous  $\text{CaCl}_2$  solution.