

## Article

# Proteolytically Resistant Bioactive Peptide-Grafted Sr/Mg-Doped Hardystonite Foams: Comparison of Two Covalent Functionalization Strategies

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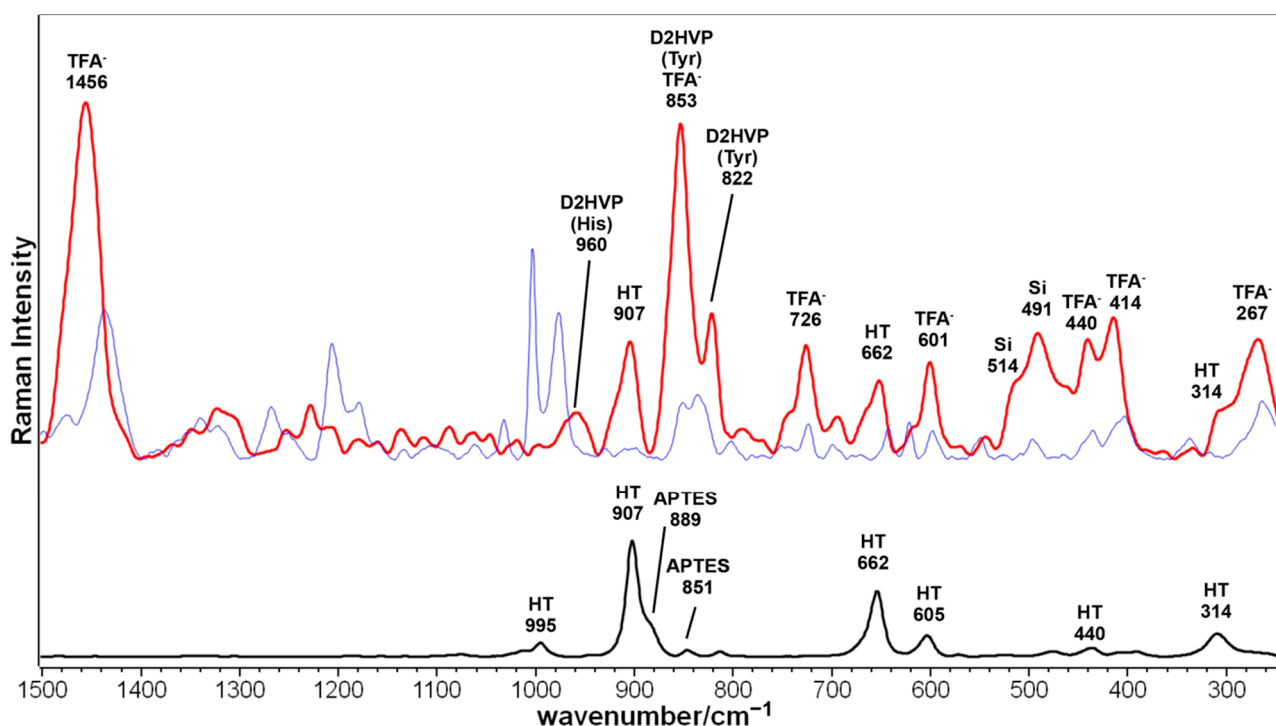
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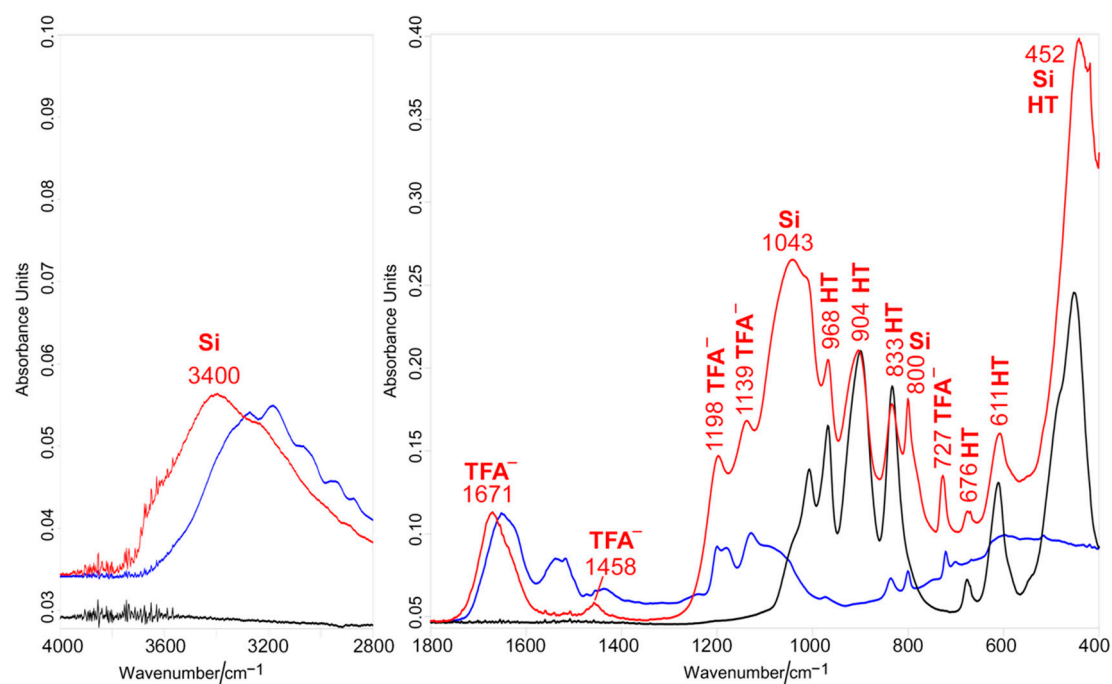
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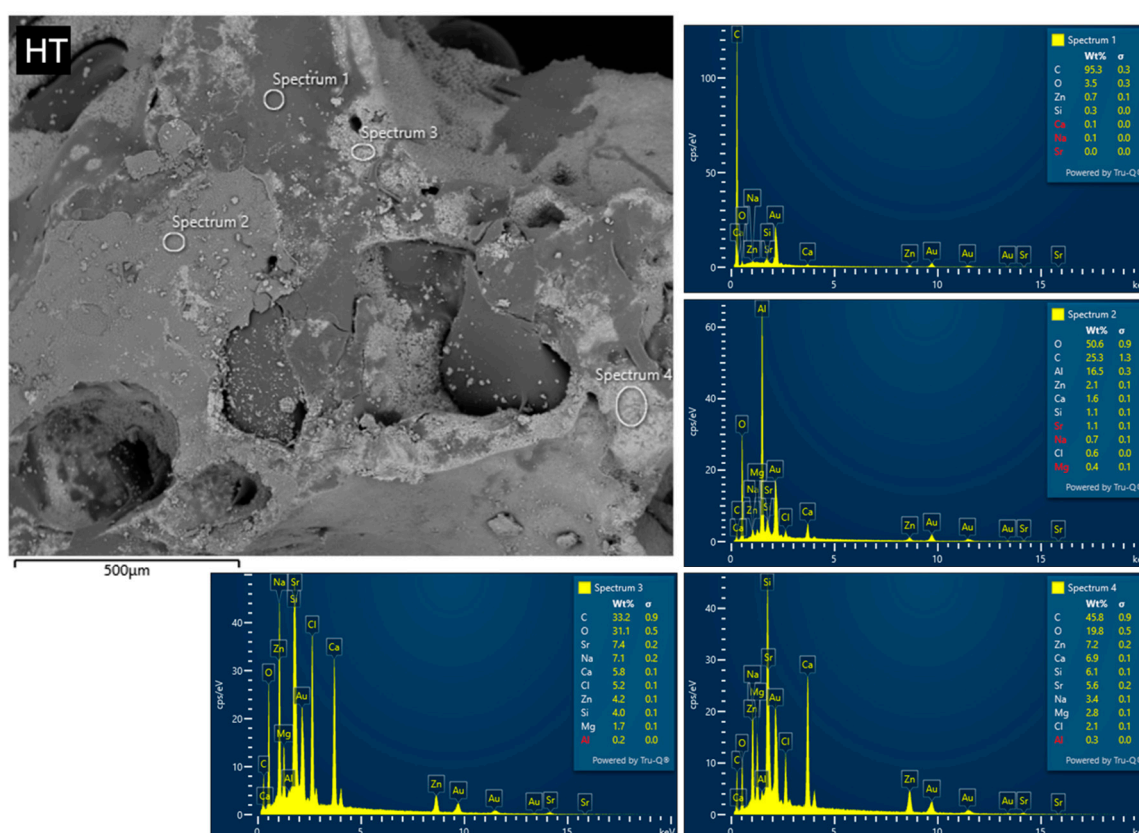
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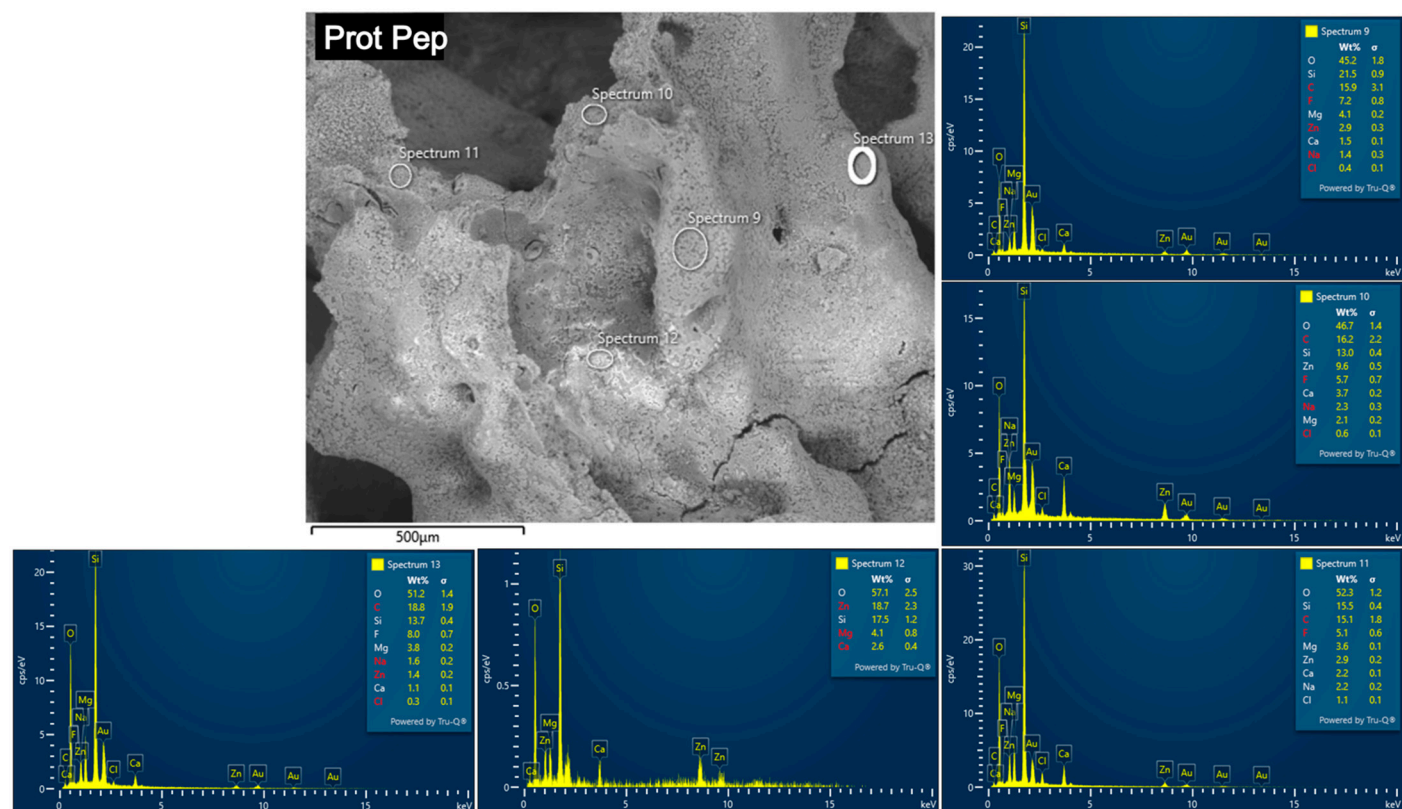
**Figure S1.** Raman spectra of the Sr/Mg-doped HT foams as obtained after silanization treatment (black line) and after the covalent grafting via side-chain protected peptide D2HVP (red line). The spectrum of the pure D2HVP peptide is reported for comparison (blue line). The bands assignable to the bioceramic substrate (HT), to amino acid residues belonging to the D2HVP peptide (tyrosine (Tyr) and histidine (His)), trifluoroacetate anion (TFA<sup>−</sup>) and silica (Si) are indicated.



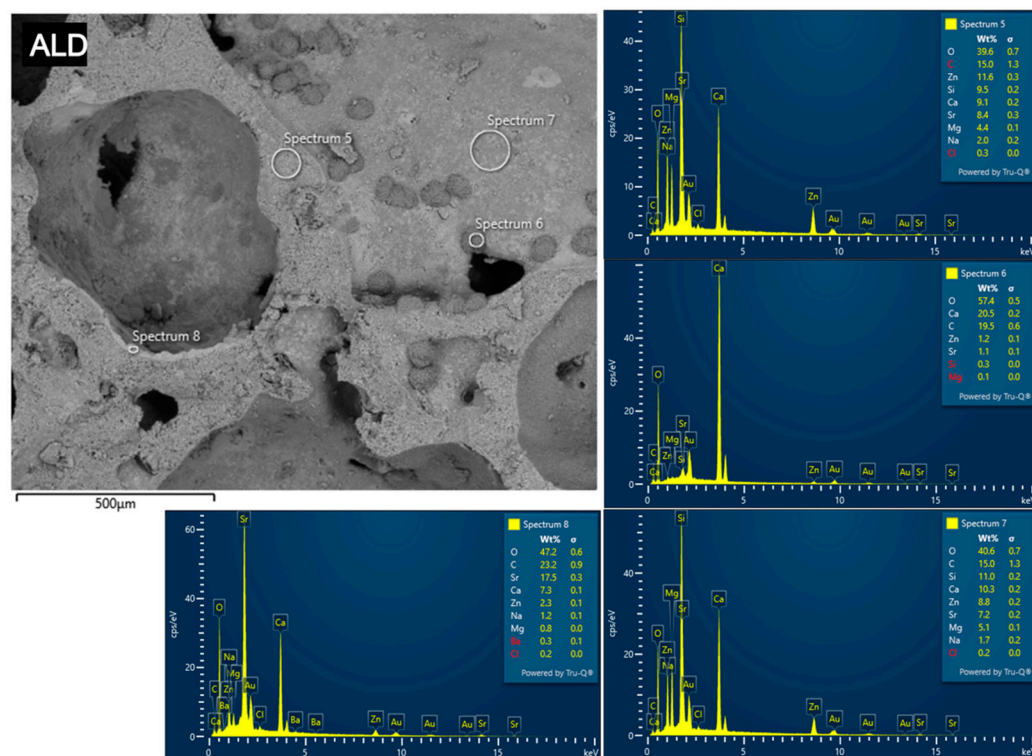
**Figure S2.** IR spectra of the Sr/Mg-doped HT foams as obtained after silanization treatment (black line) and after the covalent grafting via side-chain protected peptide D2HVP (red line). The spectrum of the pure D2HVP peptide is reported for comparison (blue line). The bands assignable to the bioceramic substrate (HT), trifluoroacetate anion (TFA<sup>-</sup>) and silica (Si) are indicated.



**Figure S3.** SEM-EDS analysis of silanized Sr/Mg-doped HT, after 4 months in 20 mM NaH<sub>2</sub>PO<sub>4</sub>·H<sub>2</sub>O and 200 mM NaCl buffer.



**Figure S4.** SEM-EDS analysis of Sr/Mg-doped HT functionalized via protected peptide D2HVP, after 4 months in 20 mM  $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$  and 200 mM NaCl buffer.



**Figure S5.** SEM-EDS analysis of Sr/Mg-doped HT functionalized via aldehyde peptide D2HVPF, after 4 months in 20 mM  $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$  and 200 mM NaCl buffer.