

## Preparation and characterisation of an innovative injectable calcium sulphate based bone cement for vertebroplasty application

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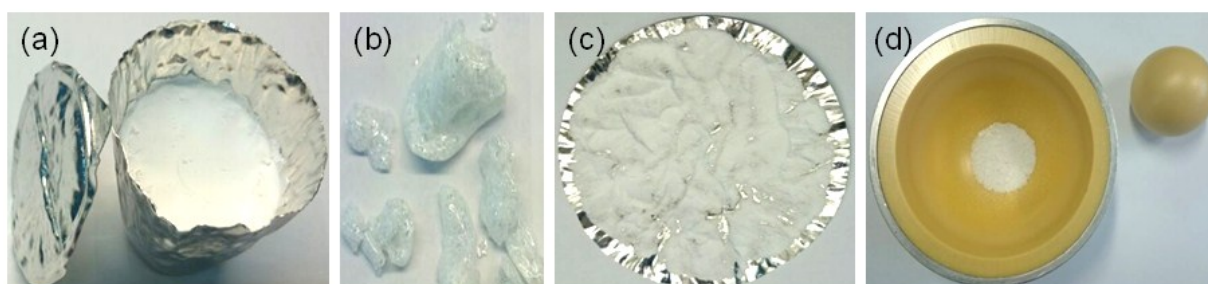
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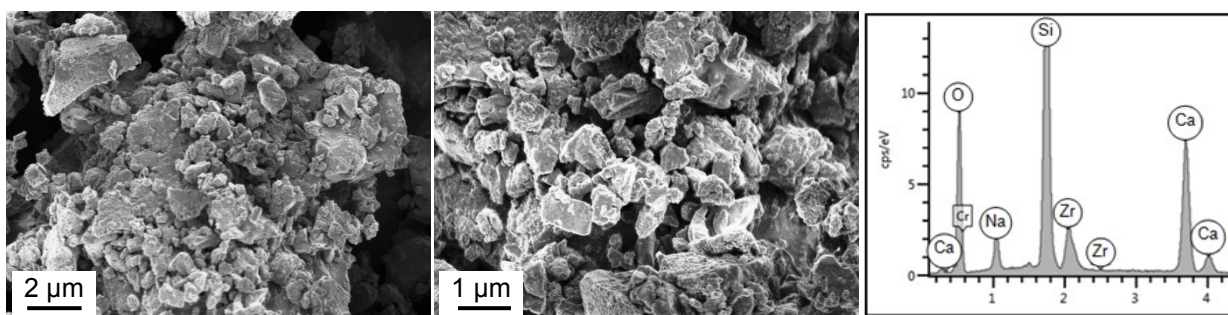
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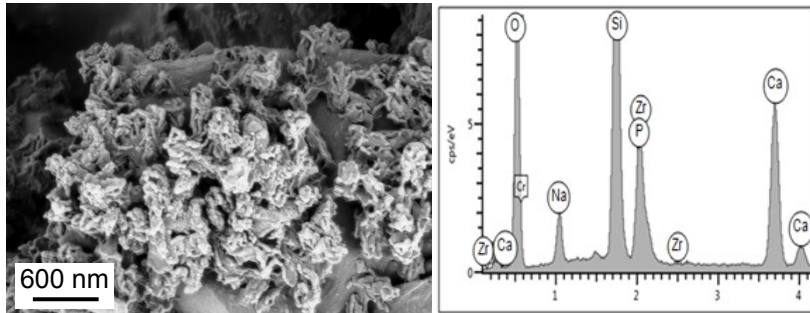
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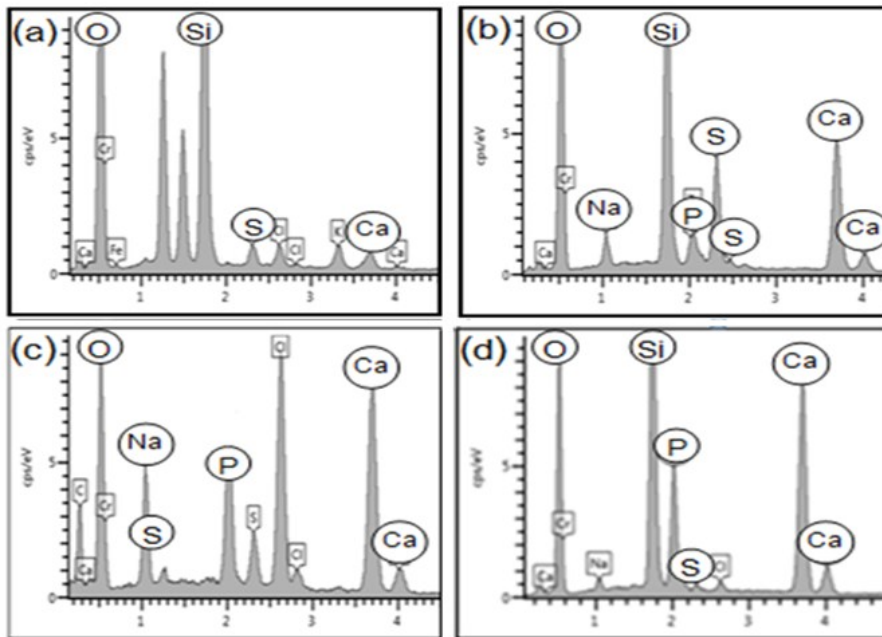
ESI. 1. The preparation sequence of glass-ceramic particles, a) raw precursors before melting, b) frit obtained after casting in water, c) powder ceramisation, d) grinding of the glass particles.



ESI. 2. FESEM images and EDS spectrum of SCNZgc particles.



ESI. 3. FESEM images of SCNZgc particles after two weeks of soaking in SBF and related EDS spectrum.



ESI. 4. EDS of calcium sulphate cement (CSC) (a) and Spine-Ghost cement (b) after soaking in SBF for 1 day; CSC (c) and Spine-Ghost cement (d) after soaking in SBF for 7 days.



ESI. 5. a) The mixture of Spine-Ghost cement with water ( $L/P = 0.4 \text{ mL/g}$ ) in the syringe before injection, b) the residual amount of Spine-Ghost cement in the DUROJECT syringe after injection (about 0.5 mL).