

Supporting Information

Hierarchical bioglass scaffolds: introducing the “milky way” for templated biomaterials

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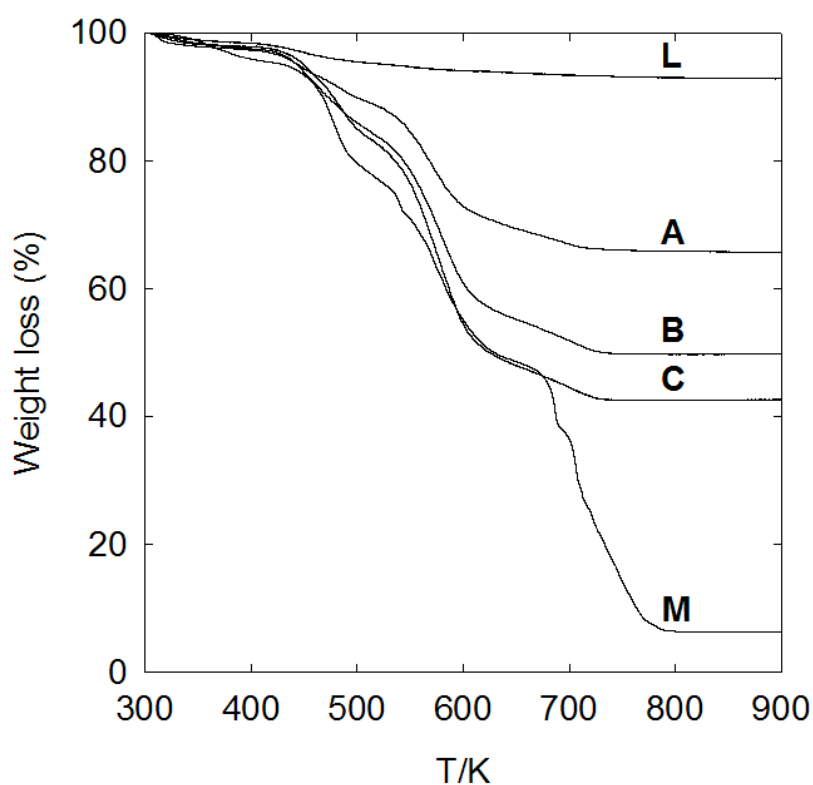


Figure S1. TGA trace (air atmosphere) of bare Ludox® (L), Milk (M) and sample ML05 prepared with 19 (A), 37 (B) and 56 (C) mL of milk.

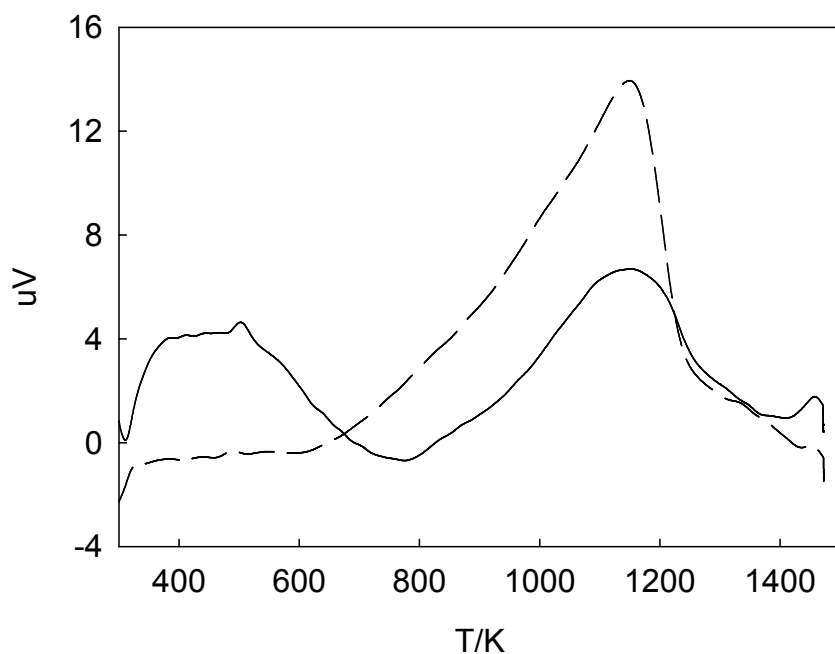


Figure S2. DTA trace (air atmosphere) of bare Ludox (full line) and sample ML05 annealed for 5 h at 773 K (dashed line).

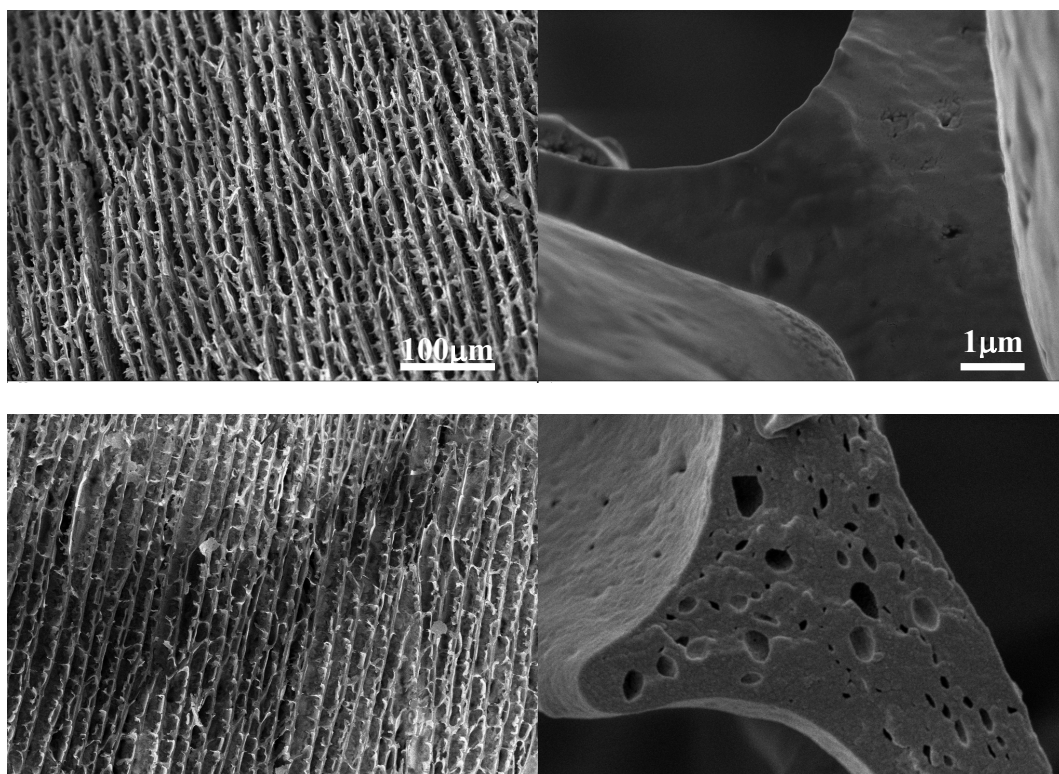


Figure S3. FESEM images of cross-sectioned (perpendicular to the direction of freezing) sample ML10 before (upper row) and after (lower row) 5 h annealing at 973 K under air atmosphere.

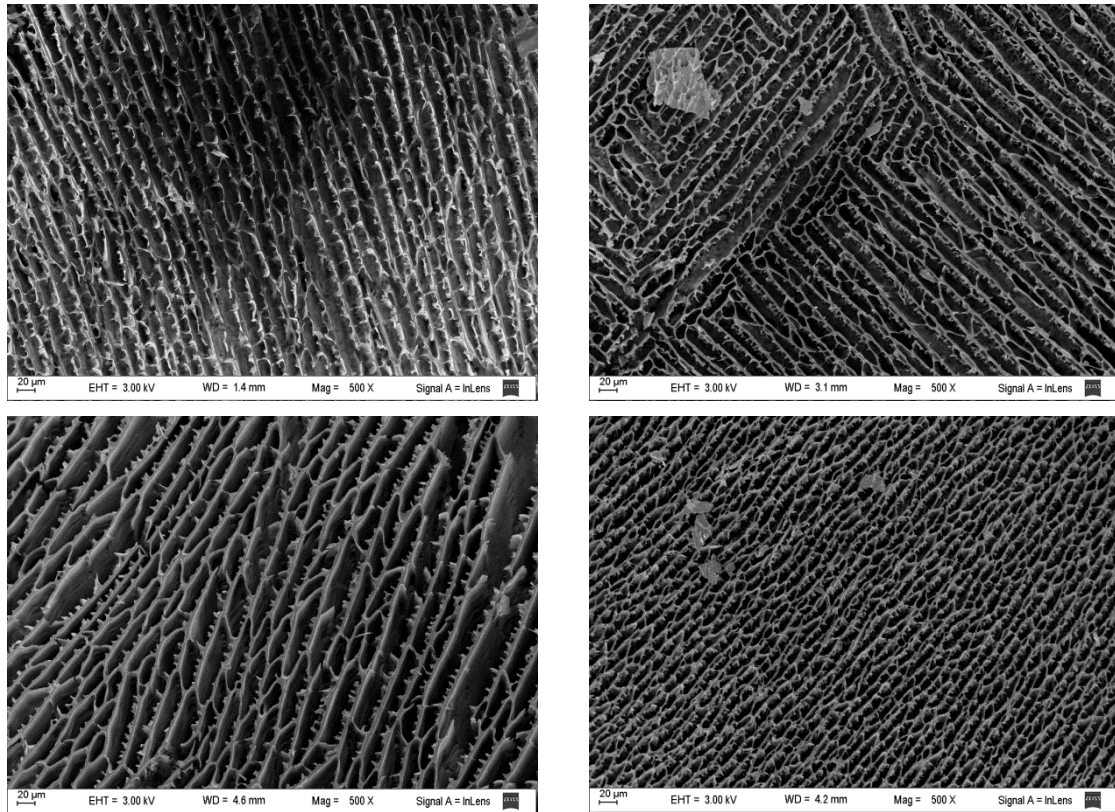


Figure S4. FESEM images of cross-sectioned (perpendicular to the direction of freezing) sample ML10 (upper row) and ML14 (lower row) frozen at 2 mm min⁻¹ (left column) or 4 mm min⁻¹ (right column).

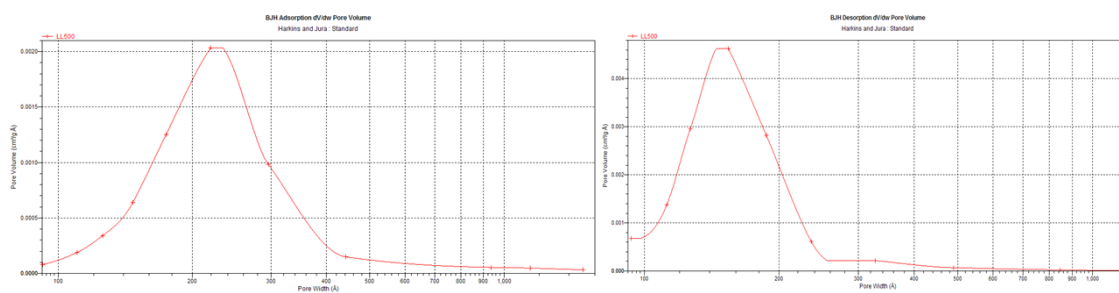


Figure S5. Pore distribution (BJH) from N₂ adsorption-desorption isotherm (77 K) (adsorption, left; desorption, right) of sample ML10 annealed 5 h at 773 K.

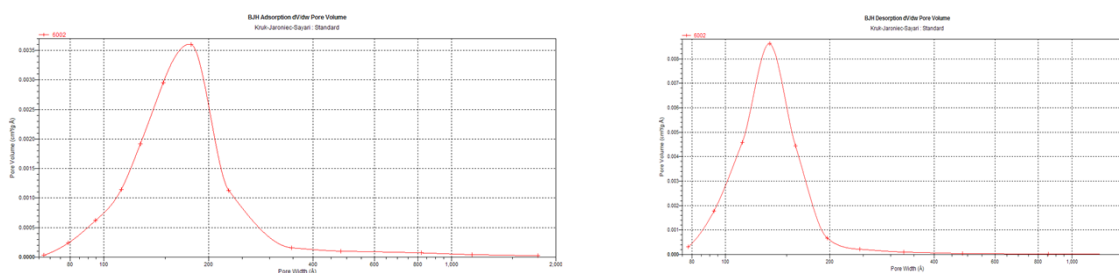


Figure S6. Pore distribution (BJH) from N₂ adsorption-desorption isotherm (77 K) (adsorption, left; desorption, right) of sample ML10 annealed 5 h at 873 K.

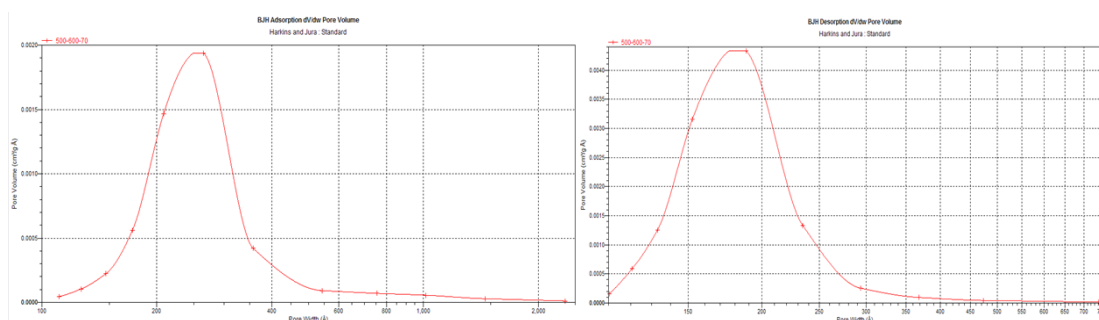


Figure S7. Pore distribution (BJH) from N₂ adsorption-desorption isotherm (77 K) (adsorption, left; desorption, right) of sample ML10 annealed 5 h at 973 K.

Table S1. Atomic percentage estimated from EDS probe for sample ML10 immersed in SBF at 37 °C for increasing times.

Exposure time/h	Si	P	Ca	Na
0	94,8	1,5	2,6	1,1
4	96,6	1,1	0,9	1,4
24	75,9	9,4	12,7	1,9

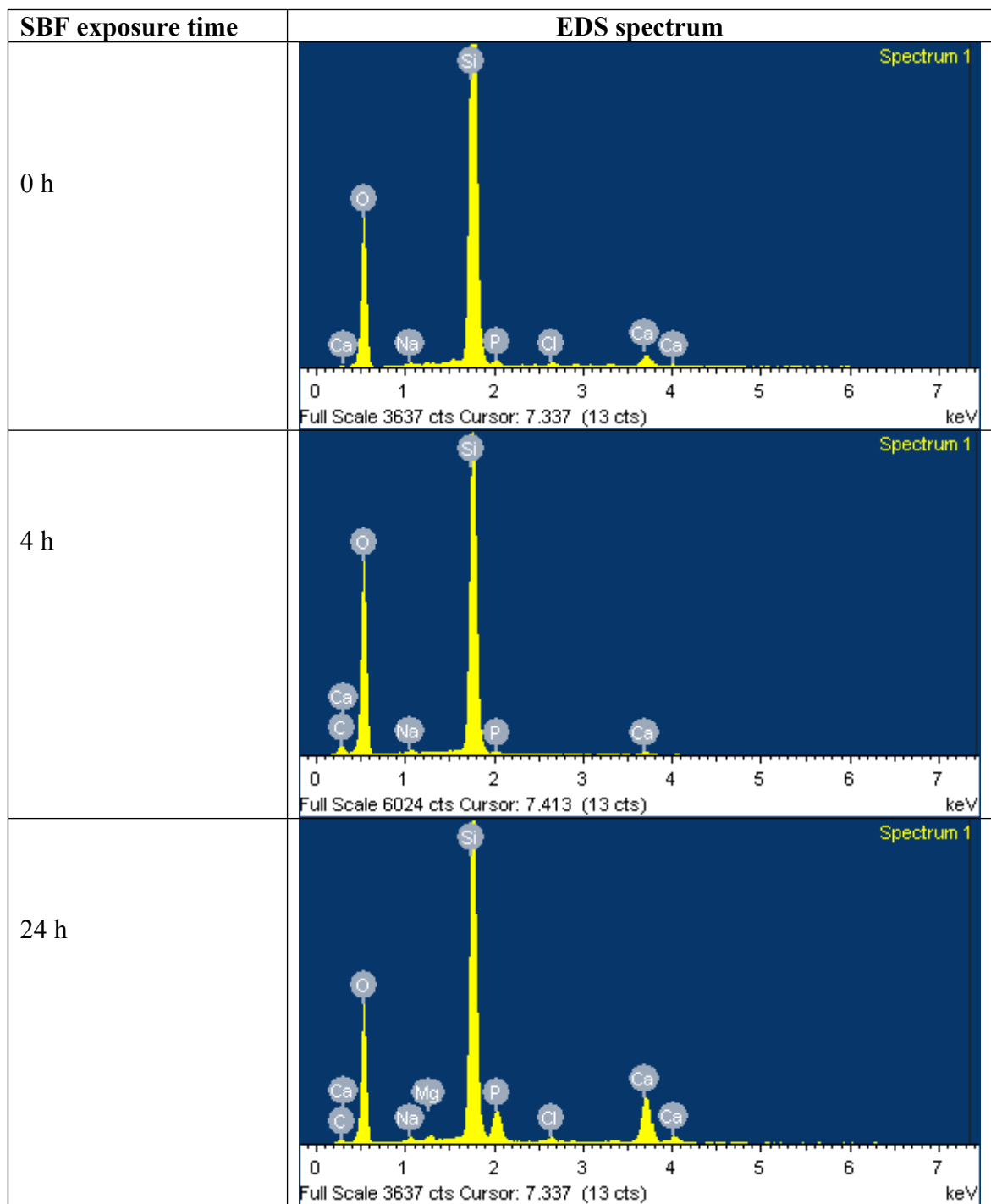


Figure S8. EDS spectra of sample ML exposed at 37 °C to SBF for increasing periods.