

RESEARCH ARTICLE

3D-printed PETG/BC scaffolds for bone tissue repair

Supplementary file

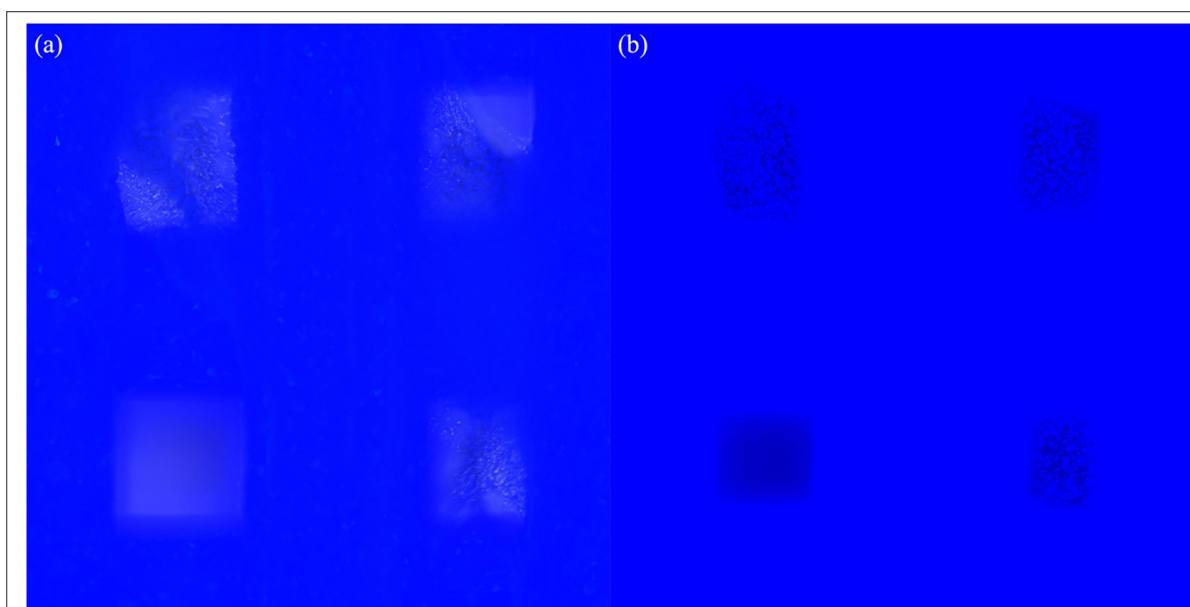


Figure S1. Confocal images of PETG/BC (80/20 wt%) with (a) merged DAPI and bright-field imaging, and (b) pure DAPI. These images feature the non-specific absorption of DAPI and fluorescence background. Abbreviations: DAPI, 4',6-diamidino-2-phenylindole; PETG/BC, polyethylene terephthalate glycol/bacterial cellulose.

Table S1. Volumetric and gravimetric flow rate results of different material concentrations

Material	Volumetric flow rate (kg/h)	Gravimetric flow rate (kg/h)
PETG/BC (90/10 wt%)	1.206	0.134
PETG/BC (85/15 wt%)	1.100	0.194
PETG/BC (80/20 wt%)	0.972	0.243

Abbreviations: BC, bacterial cellulose; PETG, polyethylene terephthalate glycol.

Table S2. Pore size, filament width, layer thickness, and porosity of the 3D-printed scaffolds

Material composition	Pore size (μm)	Filament width (μm)	Layer thickness (μm)	Porosity (%)
PETG	209 \pm 0.4	338.8 \pm 0.63	269.2 \pm 0.16	46.3 \pm 1.2
PETG/BC (90/10 wt%)	203 \pm 5.5	324.5 \pm 7.42	267.44 \pm 0.47	45.82 \pm 0.98
PETG/BC (85/15 wt%)	210.2 \pm 1.09	344.27 \pm 0.27	268.24 \pm 0.82	46.06 \pm 0.65
PETG/BC (80/20 wt%)	207.55 \pm 0.61	335.43 \pm 1.13	268.24 \pm 0.82	45.98 \pm 1.5

Abbreviations: BC, bacterial cellulose; PETG, polyethylene terephthalate glycol.

Table S3. Pore size measurements of the 3D-printed scaffolds

Material composition	Surface micro pores, <i>n</i>	Surface micro pore size (μm)	Cross-sectional micro pores, <i>n</i>	Cross-sectional micro pore size (μm)
PETG	0	0	0	0
PETG/BC (90/10 wt%)	43.6 ± 2.04	23 ± 4.06	70.5 ± 7.5	37.91 ± 11.02
PETG/BC (85/15 wt%)	72.8 ± 0.5	26.93 ± 7.47	130.67 ± 1.25	41.02 ± 15.24
PETG/BC (80/20 wt%)	129 ± 1	41.69 ± 10.41	168.37 ± 4.33	48.43 ± 13.48

Abbreviations: PETG, polyethylene terephthalate glycol; BC, bacterial cellulose.