BEILSTEIN JOURNAL OF NANOTECHNOLOGY

Supporting Information

for

Nanocarrier-integrated multilayer films produced by 3D printing for improved skin adhesion and curcumin photostability

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Beilstein J. Nanotechnol. **2026,** *17,* 440–453. doi:10.3762/bjnano.17.30

Additional Figure and Table

Table S1: pH values for each hydrogel used in the 3D printing process (n = 3).[a]

Sample	pH
HG-CMC/TiO_2	5.30 ± 0.14
HG-CMC/$Alg_{C\text{-}NC}$	5.34 ± 0.18
HG-$Chi_{C\text{-}NC}$	4.76 ± 0.08
HG-CMC/$Alg_{C\text{-}S}$	5.85 ± 0.07
HG-$Chi_{C\text{-}S}$	4.67 ± 0.08

[a]C-NC: curcumin-loaded polymeric nanocapsules; HG-$Chi_{C\text{-}NC}$: chitosan hydrogel containing curcumin-loaded polymeric nanocapsules; HG-CMC/$Alg_{C\text{-}NC}$: blend of sodium carboxymethyl cellulose and alginate hydrogel containing curcumin-loaded polymeric nanocapsules; HG-$Chi_{C\text{-}S}$: chitosan hydrogel containing curcumin in hydroalcoholic solution; HG-CMC/$Alg_{C\text{-}S}$: blend of sodium carboxymethyl cellulose and alginate hydrogel containing curcumin in hydroalcoholic solution; HG-Chi: chitosan hydrogel; HG-CMC/Alg: blend of sodium carboxymethyl cellulose and alginate hydrogel; HG-CMC/TiO_2: blend of sodium carboxymethyl cellulose and alginate hydrogel containing titanium dioxide.

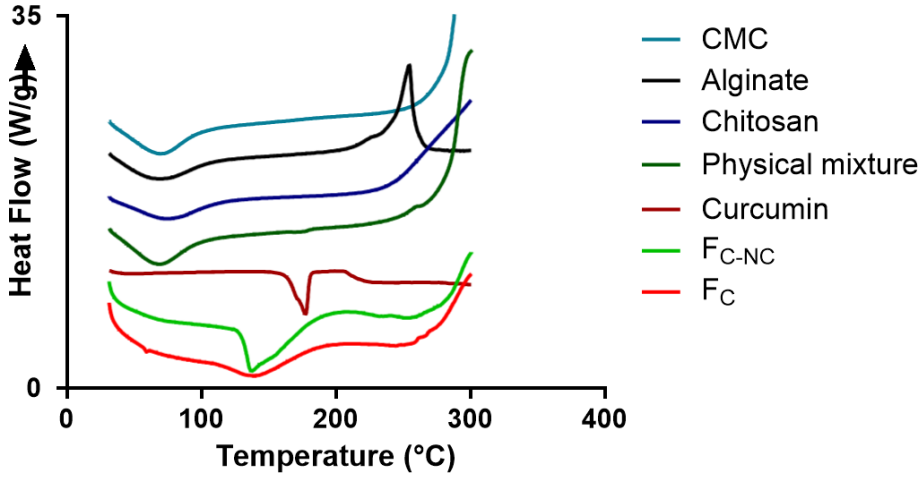

Figure S1: SM: Differential scanning calorimetry for curcumin and components of 3D-printed films. CMC: carboxymethyl cellulose, $F_{C\text{-}NC}$: 3D-printed film containing curcumin-loaded nanocapsules, and F_C: 3D-printed film containing unloaded curcumin.