Supporting Information

Functional Wound Dressing Materials with Highly Tunable Drug Release Properties

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Figure S1 – full release profiles

Figure S1. Release of DCF from alginate, Na-CMC, viscose and PET. a) amount of DCF released from a 1 x 1 cm squares model wound dressing; b) percentage of released DCF, whereas the incorporated DCF amounts differ between the samples.

Figure S2 – ATR-IR spectra after in vitro release testing.
Figure S2. ATR-IR spectra after *in vitro* release testing. No peaks assigned to DCF can be observed.

Figure S3 – WAXS diffractograms after *in vitro* release testing.

Figure S3. WAXS diffractograms after *in vitro* release testing. No peaks that can be assigned to DCF are observable.
Figure S4. SEM micrographs of used unloaded materials with a lower magnification.
Figure S5. SEM micrographs of pure DCF. Magnifications are written above the respective micrograph.
Figure S6 – 1. derivative profiles based on DCF release results

Figure S6. Additional representation of the release profiles as 1. derivatives of DCF release from respective materials. The obtained curves indicate a complex, possible multi-mechanism drug release.

Table S1 – additional significance evaluation

Table S1. Total amounts of incorporated DCF in different wound dressing materials as calculated based on release measurements and their corresponding p-values (significant difference) calculated using GraphPad Prism Software Version 5.01

<table>
<thead>
<tr>
<th>Samples</th>
<th>DCF mg/cm²</th>
<th>p - value</th>
<th>Significant difference</th>
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</thead>
<tbody>
<tr>
<td>Alginate</td>
<td>0.24262</td>
<td>0.0000011</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Na-CMC</td>
<td>0.20844</td>
<td>0.0000017</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Viscose</td>
<td>0.12885</td>
<td>0.00243</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td>PET</td>
<td>0.02821</td>
<td>0.03318</td>
<td>p &lt; 0.05</td>
</tr>
</tbody>
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