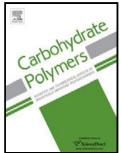
## Accepted Manuscript

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## ACCEPTED MANUSCRIPT

1	CELLULOSE ACETATE BASED 3-DIMENSIONAL ELECTROSPUN SCAFFOLDS
2	FOR SKIN TISSUE ENGINEERING APPLICATIONS
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11	
12	Highlights
13	• 3D CA/PULL scaffolds were produced via electrospinning for the first time.
14	• PULL was used for providing 3-dimensionality to the scaffolds.
15	• Hydroplilic PULL content of the scaffolds were removed to increase porosity.
16	
17	
18	Abstract
19	Skin defects that are not able to regenerate by themselves are among the major problems faced.
20	Tissue engineering approach holds promise for treating such defects. Development of tissue-

21 mimicking-scaffolds that can promote healing process receives an increasing interest in recent 22 years. In this study, 3-dimensional electrospun cellulose acetate (CA) pullulan (PULL) scaffolds 23 were developed for the first time. PULL was intentionally used to obtain 3D structures with 24 adjustable height.It was removed from the electrospun mesh to increase the porosity and 25 biostability. Different ratios of the polymers were electrospun and analyzed with respect to 26 degradation, porosity, and mechanical properties. It has been observed that fiber diameter, 27 thickness and porosity of scaffolds increased with increased PULL content, on the other hand this 28 resulted with higher degradation of scaffolds. Mechanical strength of scaffolds was improved 29 after PULL removal suggesting their suitability as cell carriers. Cell culture studies were 30 performed with the selected scaffold group (CA/PULL:50/50) using mouse fibroblastic cell line 31 (L929). In vitro cell culture tests showed that cells adhered, proliferated and populated

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