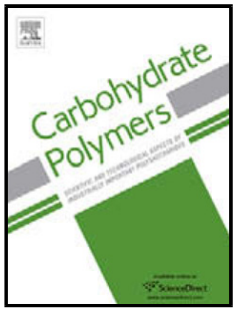

Title: Cellulose-based click-scaffolds: Synthesis, characterization and biofabrications

Authors: Ahmed A. Nada, Faten Hassan Hassan Abdellatif, Eman AboBakr Ali, Rihab A. Abdelazeem, Ahmed A.S. Soliman, Nabil Y. Abou-Zeid

PII: S0144-8617(18)30840-3
DOI: https://doi.org/10.1016/j.carbpol.2018.07.049
Reference: CARP 13849

To appear in:

Received date: 23-5-2018
Revised date: 15-7-2018
Accepted date: 16-7-2018

Please cite this article as: Nada AA, Abdellatif FHH, Ali EA, Abdelazeem RA, Soliman AAS, Abou-Zeid NY, Cellulose-based click-scaffolds: Synthesis, characterization and biofabrications, *Carbohydrate Polymers* (2018), https://doi.org/10.1016/j.carbpol.2018.07.049

Cellulose-based click-scaffolds: Synthesis, characterization and biofabrications

Ahmed A. Nada[*1], Faten Hassan Hassan Abdellatif [1], Eman AboBakr Ali [2], Rihab A. Abdelazeem[1], Ahmed A.S. Soliman[3] and Nabil Y. Abou-Zeid[1]

[1]Pretreatment & Finishing of Cellulose Based Textiles Dept., National Research Centre, Dokki, Giza, Egypt.
[2]Polymer Dept., National Research Centre, Dokki, Giza, Egypt.
[3]Department of Pharmacognosy, Pharmaceutical and Drug Industries Division, National Research Centre, Dokki, Giza, Egypt.

[*]**Corresponding author:** Textile Research Division, National Research Centre; e-mail: aanada@ncsu.edu; Dokki, Giza, Egypt.

Highlights:

- Ethyl cellulose (EC) was functionalized azide functional groups
- Propargylated β-cyclodextrin supermacromolecule was synthesized for click chemistry.
- Click-gel was obtained using the azido-EC and propargylated β-cyclodextrin
- Clickable electrospun fiber based on azido-ethyl cellulose was produced

Abstract

Carbohydrates derivatives containing propargyl pending functional groups have been used in medical applications due to their improved chemical, biological, and functional properties.