Bacterial nanocellulose glycidyl methacrylate grafting. Preparation and perspectives.

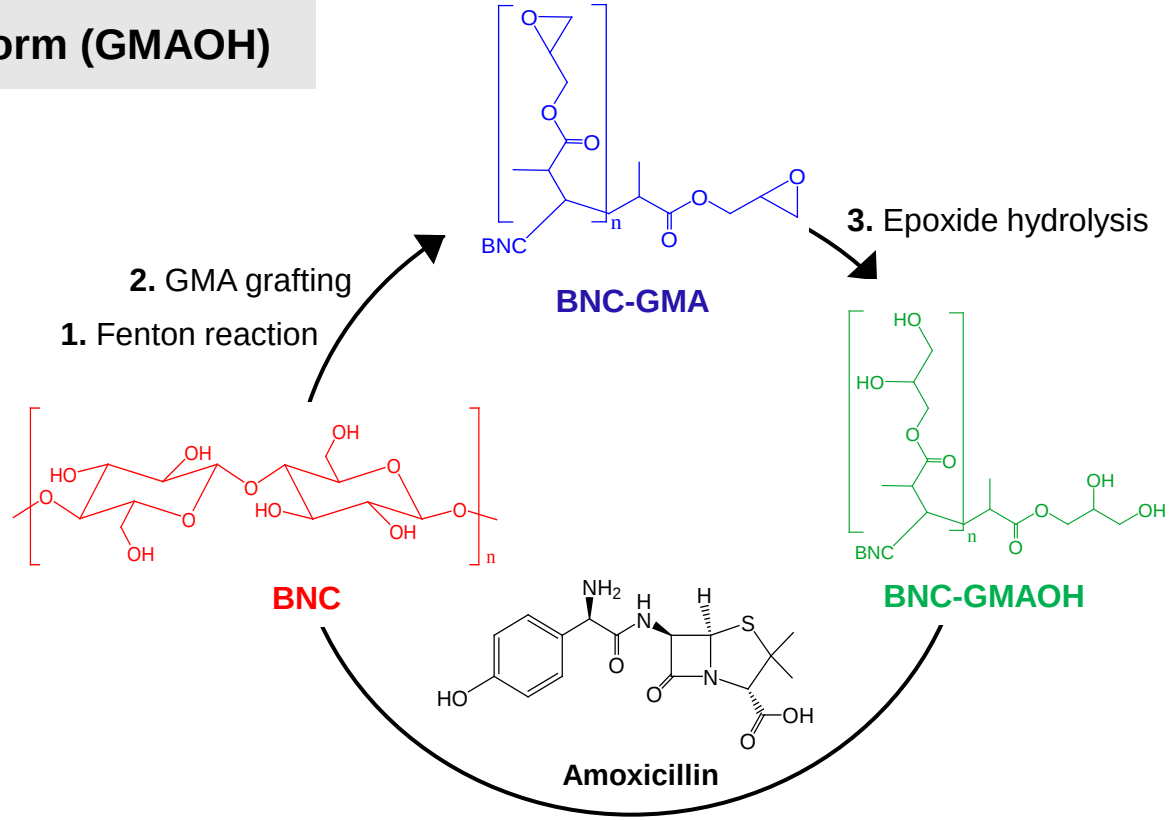
Chiara Bongio, Andrea Bernardi, Marco Zarattini, Elena Vismara

Polytechnic of Milan, Department of Chemistry, Material and Chemical Engineering "Giulio Natta", Italy.

- **Bacterial nanocellulose (BNC) was grafted with glycidyl methacrylate (GMA)**
- **GMA appendages were further transformed in their glycerol form (GMAOH)**

HOW?

The approach used for cellulose textiles[1] has been transferred to BNC: Fenton reaction (**1**) promotes GMA grafting (**2**); GMA was further transformed to GMAOH by epoxide hydrolysis (**3**).



WHY?

BNC-GMA/GMAOH could be suitable as drug delivery systems. The capability of new cellulosic materials to adsorb drugs was investigated by using Amoxicillin as reference compound.

COST Action FP1205
Budapest, 22nd Sept 2016

Reference: [1] Vismara E. *et al*, Journal of Hazardous Materials (2009), 170 (2-3), 798-808.