

## **Publications of the BIO group from 2014 to 2022**

(see documents/CVs of individual group members for full publication lists)

Updated June 2022

### **2022**

- D. Aguilera-Bulla, L. Legay, S.J. Buwalda, T. Budtova, Crosslinker-Free Hyaluronic Acid Aerogels, *Biomacromolecules* 2022, in press  
<https://doi.org/10.1021/acs.biomac.2c00207>
- S. Groult, S.J. Buwalda, T. Budtova, Tuning bio-aerogel properties for controlling theophylline delivery. Part 2: Pectin-cellulose composite aerogels, *Biomaterials Advances* 2022, 135, 212732  
<https://doi.org/10.1016/j.bioadv.2022.212732>
- C. Chartier, S.J. Buwalda, H. Van Den Berghe, B. Nottelet, T. Budtova, Tuning the properties of porous chitosan: Aerogels and cryogels, *International Journal of Biological Macromolecules* 2022, 202, 215-223  
<https://doi.org/10.1016/j.ijbiomac.2022.01.042>

### **2021**

- M. Brancourt-Hulmel, S. Arnoult, I. Cezard, F. El Hage, E. Gineau, J. Girones, Y. Griveau, M-P. Jacquemont, S. Jaffuel, E. Mignot, G. Mouille, C. Lapierre, F. Legee, V. Mechin, P. Navard, L.T.T Vo and M. Reymond "A comparative study of maize and miscanthus regarding cell-wall composition and stem anatomy for conversion into bioethanol and polymer composites", *Bioenergy Research* (2021)  
<https://doi.org/10.1007/s12155-020-10239-z>
- M. Brancourt-Hulmel, R. Raverdy, J. Girones, E. Mignot, Y. Griveaux et P. Navard, "Variability of stem solidness among miscanthus genotypes and its role on mechanical properties of polypropylene composites", *GCB Bioenergy*, 13, 1576-1585 (2021)  
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- S. A. E. Boyer, J-M. Haudin, V. Song, V. Bourassier, P. Navard and C. Barron "Transcrystallinity in maize tissues/polypropylene composites: first focus of the heterogeneous nucleation and growth stages versus tissue type", *Polymer Crystallization*, 4, e10155 (2021)  
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- E. Di Giuseppe, J. Girones, L.T.T. Vo, E. Gineau, C. Lapierre, M. Brancourt-Hulmel, S. Arnoult-Carrier and P. Navard "Polysaccharides and phenolics of miscanthus below-ground cell walls and their influence on polyethylene composites", *Carbohydrate Polymers*, 251, 117086 (2021)  
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- F. Zou, T. Budtova, "Tailoring the morphology and properties of starch aerogels and cryogels via starch source and process parameter" *Carbohydrate Polymers*, 255, 117344 (2021)  
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- P. Sowinski, E. Piorkowska, S.A.E. Boyer, J.M. Haudin, "High-pressure crystallization of iPP nucleated with 1,3:2,4bis(3,4-dimethylbenzylidene)sorbitol" *Polymers*, 13, 145 (2021)
- S. Groult, S. Buwalda, T. Budtova, "Pectin hydrogels, aerogels, cryogels and xerogels: influence of drying on structural and release properties" *European Polymer Journal*, 149, 110386 (2021)  
<https://doi.org/10.1016/j.eurpolymj.2021.110386>
- F. Chen, J.-L. Bouvard, D. Sawada, C. Pradille, M. Hummel, H. Sixta, T. Budtova, "Exploring Digital Image Correlation Technique for the Analysis of the Tensile Properties of All-Cellulose Composites", *Cellulose*, 28, 4165–4178 (2021)  
<https://doi.org/10.1007/s10570-021-03807-9>
- C. Raimbault, P. Laure, G. François, S.A.E. Boyer, M. Vincent, F. Choquart, J.-F. Agassant, "Foaming parameter identification of polyurethane using FOAMAT® device", *Polymer Engineering and Science*, 61, 1-14 (2021)  
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- S. Groult, S.J. Buwalda, T. Budtova, "Tuning bio-aerogel properties for controlling theophylline delivery. Part 1: Pectin aerogels" *Materials Science and Engineering C*, 126, 112148 (2021)  
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- A. El Jundi, S.J. Buwalda, A. Bethry, S. Hunger, J. Coudane, Y. Bakkour, B. Nottelet, « Double-hydrophilic block copolymers based on functional poly( $\epsilon$ -caprolactone)s for pH-dependent controlled drug delivery », *Biomacromolecules*, 21, 397-407 (2020)  
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