References

Description

References

- Abbott, A. P., Bell, T. J., Handa, S., & Stoddart, B. (2006). Cationic functionalisation of cellulose using a choline based ionic liquid analogue. Green Chemistry, 8, 784â??786.
- Abdul Khalil, H. P. S., Bhat, A. H., & Ireana Yusra, A. F. (2012). Green composites from sustainable cellulose nanofibrilsâ?¯ : A review. Carbohydrate Polymers, 87, 963â??979
- Abitbol, T., Rivkin, A., Cao, Y., Nevo, Y., Abraham, E., Ben-Shalom, T., â?¦ Shoseyov, O. (2016). Nanocellulose, a tiny fiber with huge applications. Current Opinion in Biotechnology, 39, 76â??88.
- Adenekan, K., & Hutton-Prager, B. (2019). Sticky hydrophobic behavior of cellulose substrates impregnated with alkyl ketene dimer (AKD) via sub- and supercritical carbon dioxide. Colloids and Surfaces A : Physicochemical and Engineering Aspects, 560, 154â??163.
- Aduba, D. C., An, S.-S., Selders, G. S., Wang, J., Yeudall, W. A., Bowlin, G. L., â?¦ Yang, H. (2016). Fabrication, characterization, and in vitro evaluation of silver-containing arabinoxylan foams as antimicrobial wound dressing. Journal of Biomedical Materials Research Part A, 104, 2456â??2465.
- Ajit Kumar Varma, Arun Bal, Harish Kumar, Rajesh Kesav, & Sandhya Nair. (2006). Efficacy of Polyurethane Foam Dressing in Debrided Diabetic Lower Limb Wounds. Wounds Research, 18, 300â??306.
- A. Kenar, J., J. Eller, F., C. Felker, F., A. Jackson, M., & F. Fanta, G. (2014). Starch aerogel beads obtained from inclusion complexes prepared from high amylose starch and sodium palmitate. Green Chemistry, 16, 1921â??1930.
- Alexandrescu, L., Syverud, K., Gatti, A., & Chinga-Carrasco, G. (2013). Cytotoxicity tests of cellulose nanofibril-based structures. Cellulose, 20, 1765â??1775.
- Alvarado, N., Romero, J., Torres, A., LÃ³pez de Dicastillo, C., Rojas, A., Galotto, M. J., & Guarda, A. (2018). Supercritical impregnation of thymol in poly(lactic acid) filled with electrospun poly(vinyl alcohol)-cellulose nanocrystals nanofibersâ?¯ : Development an active food packaging material. Journal of Food Engineering, 217, 1â??10.
- Amin, M., Abadi, A. G., Ahmad, N., Katas, H., & Jamal, J. (2012). Bacterial cellulose film coating as drug delivery systemâ?¯ : Physicochemical, thermal and drug release properties. Sains Malaysiana, 41, 561â??568.
- Aminayi, P., & Abidi, N. (2015). Ultra-oleophobic cotton fabric prepared using molecular and nanoparticle vapor deposition methods. Surface and Coatings Technology, 276, 636â??644.
- Anastas, P. T., & Warner, J. C. (1998). Green Chemistryâ?¯ : Theory and Practice. Oxford University Press : New York, p. 30.
- Anjum, S., Arora, A., Alam, M. S., & Gupta, B. (2016). Development of antimicrobial and scar preventive chitosan hydrogel wound dressings. International Journal of Pharmaceutics, 508, 92â??101.
- AraÃºjo, M., Viveiros, R., Philippart, A., Miola, M., Doumett, S., Baldi, G., â?¦ VernÃ©, E. (2017). Bioactivity, mechanical properties and drug delivery ability of bioactive glass-ceramic scaffolds coated with a natural-derived polymer. Materials Science and Engineering : C, 77, 342â??351.

- Ã•vila RamÃrez, J. A., Fortunati, E., Kenny, J. M., Torre, L., & Foresti, M. L. (2017). Simple citric acid-catalyzed surface esterification of cellulose nanocrystals. Carbohydrate Polymers, 157, 1358â??1364.
- Azzam, F., Heux, L., Putaux, J.-L., & Jean, B. (2010). Preparation By Grafting Onto, Characterization, and Properties of Thermally Responsive Polymer-Decorated Cellulose Nanocrystals. Biomacromolecules, 11, 3652â??3659.
- Bacakova, L., Pajorova, J., Bacakova, M., Skogberg, A., Kallio, P., Kolarova, K., & Svorcik, V. (2019). Versatile Application of Nanocelluloseâ?¯ : From Industry to Skin Tissue Engineering and Wound Healing. Nanomaterials, 9, 164.
- Bachu, S. (2003). Screening and ranking sedimentary basins for sequestration of CO2 in geological media in response to climate change. Environmental Geology, 277â??289.
- Barazzouk, S., & Daneault, C. (2012). Tryptophan-based peptides grafted onto oxidized nanocellulose. Cellulose, 19, 481â??493.
- Bardet, R., Belgacem, N., & Bras, J. (2015). Flexibility and Color Monitoring of Cellulose Nanocrystal Iridescent Solid Films Using Anionic or Neutral Polymers. ACS Applied Materials & Interfaces, 7, 4010â??4018.
- Barrett, E. P., Joyner, L. G., & Halenda, P. P. (1951). The Determination of Pore Volume and Area Distributions in Porous Substances. I. Computations from Nitrogen Isotherms. Journal of the American Chemical Society, 73, 373â??380.
- Barros, A. A., Oliveira, C., Reis, R. L., Lima, E., & Duarte, A. R. C. (2015). Ketoprofen-eluting biodegradable ureteral stents by CO2 impregnationâ?¯ : In vitro study. International Journal of Pharmaceutics, 495, 651â??659.
- Bassanetti, I., Carcelli, M., Buschini, A., Montalbano, S., Leonardi, G., Pelagatti, P., â?¦ Rogolino, D. (2017). Investigation of antibacterial activity of new classes of essential oils derivatives. Food Control, 73, 606â??612.
- Basu, A., Heitz, K., StrÃ¸mme, M., Welch, K., & Ferraz, N. (2018). Ion-crosslinked wood-derived nanocellulose hydrogels with tunable antibacterial propertiesâ?¯ : Candidate materials for advanced wound care applications. Carbohydrate Polymers, 181, 345â??350.
- Basu, A., Lindh, J., Ã lander, E., StrÃ¸mme, M., & Ferraz, N. (2017). On the use of ion-crosslinked nanocellulose hydrogels for wound healing solutionsâ?¯ : Physicochemical properties and application-oriented biocompatibility studies. Carbohydrate Polymers, 174, 299â??308.
- Belbekhouche, S., Bras, J., Siqueira, G., Chappey, C., Lebrun, L., Khelifi, B., â?¦ Dufresne, A. (2011). Water sorption behavior and gas barrier properties of cellulose whiskers and microfibrils films. Carbohydrate Polymers, 83, 1740â??1748.
- BenÃtez, A. J., & Walther, A. (2017). Cellulose nanofibril nanopapers and bioinspired nanocompositesâ?¯ : A review to understand the mechanical property space. Journal of Materials Chemistry A, 5, 16003â??16024.
- Benkaddour, A., Jradi, K., Robert, S., & Daneault, C. (2013). Study of the Effect of Grafting Method on Surface Polarity of Tempo-Oxidized Nanocellulose Using Polycaprolactone as the Modifying Compoundâ?¯ : Esterification versus Click-Chemistry. Nanomaterials, 3, 638â??654.
- Berlioz, S., Molina-Boisseau, S., Nishiyama, Y., & Heux, L. (2009). Gas-Phase Surface Esterification of Cellulose Microfibrils and Whiskers. Biomacromolecules, 10, 2144â??2151.
- Bernhardt, A., Wehrl, M., Paul, B., Hochmuth, T., Schumacher, M., SchÃ¼tz, K., & Gelinsky, M. (2015). Improved Sterilization of Sensitive Biomaterials with Supercritical Carbon Dioxide at Low Temperature. PLoS ONE, 10. https://doi.org/10.1371/journal.pone.0129205
- Bessa, L. J., Fazii, P., Giulio, M. D., & Cellini, L. (2015). Bacterial isolates from infected wounds and their antibiotic susceptibility patternâ?¯ : Some remarks about wound infection. International

Wound Journal, 12, 47â??52.
- Bhat, A. H., Dasan, Y. K., Khan, I., & Jawaid, M. (2017). Cellulosic Biocompositesâ?¯ : Potential Materials for Future. In M. Jawaid, M. S. Salit, & O. Y. Alothman (Ã?ds.), Green Biocompositesâ?¯ : Design and Applications (p. 69â??100). Cham : Springer International Publishing.
- Bilalov, T. R., Zakharov, A. A., Jaddoa, A. A., Gumerov, F. M., & Neindre, B. L. (2017). Treatment of different types of cotton fabrics by ammonium palmitate in a supercritical CO 2 environment. The Journal of Supercritical Fluids, 130, 47â??55.
- Blackwell, M. (2011). The Fungiâ?¯ : 1, 2, 3 â?¦ 5.1 million species ? American Journal of Botany, 98, 426â??438.
- Blair, J. M. A., Webber, M. A., Baylay, A. J., Ogbolu, D. O., & Piddock, L. J. V. (2015). Molecular mechanisms of antibiotic resistance. Nature Reviews Microbiology, 13, 42â??51.
- Bouledjouidja, A., Masmoudi, Y., Sergent, M., Trivedi, V., Meniai, A., & Badens, E. (2016). Drug loading of foldable commercial intraocular lenses using supercritical impregnation. International Journal of Pharmaceutics, 500, 85â??99.
- Braga, M. E. M., Pato, M. T. V., Gil, M. H., Duarte, C. M. M., & de Sousa, H. C. (2008). Supercritical solvent impregnation of ophthalmic drugs on chitosan derivatives. 13.
- Brett, D. (2008). A Review of Collagen and Collagen-based Wound Dressings. Wounds : A Compendium of Clinical Research and Practice, 20, 347â??356.
- Brochier Salon, M.-C., Abdelmouleh, M., Boufi, S., Belgacem, M. N., & Gandini, A. (2005). Silane adsorption onto cellulose fibersâ?¯ : Hydrolysis and condensation reactions. Journal of Colloid and Interface Science, 289, 249â??261.
- Brockman, A. C., & Hubbe, M. A. (2017). Charge reversal system with cationized cellulose nanocrystals to promote dewatering of a cellulosic fiber suspension. Cellulose, 24, 4821â??4830.
- Brunauer, S., Emmett, P. H., & Teller, E. (1938). Adsorption of Gases in Multimolecular Layers. Journal of the American Chemical Society, 60, 309â??319.
- BuchtovÃ¡, N., & Budtova, T. (2016). Cellulose aero-, cryo- and xerogelsâ?¯ : Towards understanding of morphology control. Cellulose, 23, 2585â??2595.
- Budtova, T. (2019). Cellulose II aerogelsâ?¯ : A review. Cellulose, 26, 81â??121.
- Bueno, A., Selmer, I., S.P, R., Gurikov, P., LÃ¶lsberg, W., Weinrich, D., â?¦ Smirnova, I. (2018). First Evidence of Solvent Spillage under Subcritical Conditions in Aerogel Production. Industrial & Engineering Chemistry Research, 57, 8698â??8707.
- Buesch, C., Smith, S. W., Eschbach, P., Conley, J. F., & Simonsen, J. (2016). The Microstructure of Cellulose Nanocrystal Aerogels as Revealed by Transmission Electron Microscope Tomography. Biomacromolecules, 17, 2956â??2962.
- Cai, J., Kimura, S., Wada, M., Kuga, S., & Zhang, L. (2008). Cellulose Aerogels from Aqueous Alkali Hydroxideâ??Urea Solution. ChemSusChem, 1, 149â??154.
- Cai, R., Hu, M., Zhang, Y., Niu, C., Yue, T., Yuan, Y., & Wang, Z. (2019). Antifungal activity and mechanism of citral, limonene and eugenol against Zygosaccharomyces rouxii. LWT, 106, 50â??56.
- Caldeira, E., Piskin, E., Granadeiro, L., Silva, F., & Gouveia, I. C. (2013). Biofunctionalization of cellulosic fibres with L-cysteineâ?¯ : Assessment of antibacterial properties and mechanism of action against Staphylococcus aureus and Klebsiella pneumoniae. Journal of Biotechnology, 168, 426â??435.
- Camarero-Espinosa, S., Rothen-Rutishauser, B., Johan Foster, E., & Weder, C. (2016). Articular cartilageâ?¯ : From formation to tissue engineering. Biomaterials Science, 4, 734â??767.

- Camy, S., Montanari, S., Rattaz, A., Vignon, M., & Condoret, J.-S. (2009). Oxidation of cellulose in pressurized carbon dioxide. The Journal of Supercritical Fluids, 51, 188â??196.
- Cao, Y., Zavaterri, P., Youngblood, J., Moon, R., & Weiss, J. (2015). The influence of cellulose nanocrystal additions on the performance of cement paste. Cement and Concrete Composites, 56, 73â??83.
- Cao, Z., Luo, X., Zhang, H., Fu, Z., Shen, Z., Cai, N., â?¦ Yu, F. (2016). A facile and green strategy for the preparation of porous chitosan-coated cellulose composite membranes for potential applications as wound dressing. Cellulose, 23, 1349â??1361.
- Capron, I., & Cathala, B. (2013). Surfactant-Free High Internal Phase Emulsions Stabilized by Cellulose Nanocrystals. Biomacromolecules, 14, 291â??296.
- Carpenter, A. W., de Lannoy, C.-F., & Wiesner, M. R. (2015). Cellulose Nanomaterials in Water Treatment Technologies. Environmental Science & Technology, 49, 5277â??5287.
- Cervin, N. T., Aulin, C., Larsson, P. T., & WÃ¥gberg, L. (2012). Ultra porous nanocellulose aerogels as separation medium for mixtures of oil/water liquids. Cellulose, 19, 401â??410.
- Champeau, M., Thomassin, J.-M., Tassaing, T., & JÃ©rÃ´me, C. (2015). Drug loading of polymer implants by supercritical CO 2 assisted impregnationâ?¯ : A review. Journal of Controlled Release, 209, 248â??259.
- Chantereau, G., Brown, N., Dourges, M.-A., Freire, C. S. R., Silvestre, A. J. D., Sebe, G., & Coma, V. (2019). Silylation of bacterial cellulose to design membranes with intrinsic anti-bacterial properties. Carbohydrate Polymers, 220, 71â??78.
- Chauve, G., Fraschini, C., & Jean, B. (2014). Separation of Cellulose Nanocrystals. In K. Oksman, A. P. Mathew, A. Bismarck, O. Rojas, & M. Sain, Materials and Energy (Vol. 5, p. 73â??87). Singapore : WORLD SCIENTIFIC.
- Chawla, P. R., Bajaj, I. B., Survase, S. A., & Singhal, R. S. (2009). Microbial Celluloseâ?¯ : Fermentative Production and Applications. 19.
- Chen, L., Lai, C., Marchewka, R., M. Berry, R., & C. Tam, K. (2016). Use of CdS quantum dot-functionalized cellulose nanocrystal films for anti-counterfeiting applications. Nanoscale, 8, 13288â??13296.
- Chen, Y., Niu, M., Yuan, S., & Teng, H. (2013). Durable antimicrobial finishing of cellulose with QSA silicone by supercritical adsorption. Applied Surface Science, 264, 171â??175.
- Chen, Y., Zhang, Q., Ma, Y., & Han, Q. (2018). Surface-oriented fluorinated pyridinium silicone with enhanced antibacterial activity on cotton via supercritical impregnation. Cellulose, 25, 1499â??1511.
- Cheng, F., Liu, C., Wei, X., Yan, T., Li, H., He, J., & Huang, Y. (2017). Preparation and Characterization of 2,2,6,6-Tetramethylpiperidine-1-oxyl (TEMPO)-Oxidized Cellulose Nanocrystal/Alginate Biodegradable Composite Dressing for Hemostasis Applications. ACS Sustainable Chemistry & Engineering, 5, 3819â??3828.
- Cheng, Q., Ye, D., Chang, C., & Zhang, L. (2017). Facile fabrication of superhydrophilic membranes consisted of fibrous tunicate cellulose nanocrystals for highly efficient oil/water separation. Journal of Membrane Science, 525, 1â??8.
- Chindawong, C., & Johannsmann, D. (2014). An anisotropic ink based on crystalline nanocelluloseâ?¯ : Potential applications in security printing. Journal of Applied Polymer Science, 131. https://doi.org/10.1002/app.41063
- Ching, Y. C., Ershad Ali, Md., Abdullah, L. C., Choo, K. W., Kuan, Y. C., Julaihi, S. J., â?¦ Liou, N.-S. (2016). Rheological properties of cellulose nanocrystal-embedded polymer compositesâ?¯ : A review. Cellulose, 23, 1011â??1030.

- Chu, G., Qu, D., Zussman, E., & Xu, Y. (2017). Ice-Assisted Assembly of Liquid Crystalline Cellulose Nanocrystals for Preparing Anisotropic Aerogels with Ordered Structures. Chemistry of Materials, 29, 3980â??3988.
- Ciftci, D., Ubeyitogullari, A., Huerta, R. R., Ciftci, O. N., Flores, R. A., & SaldaÃ±a, M. D. A. (2017). Lupin hull cellulose nanofiber aerogel preparation by supercritical CO 2 and freeze drying. The Journal of Supercritical Fluids, 127, 137â??145.
- CNRS. (2017). Risques biologiques. Les cahiers de prÃ©vention, 88.
- Costa, V. P., Braga, M. E. M., Duarte, C. M. M., Alvarez-Lorenzo, C., Concheiro, A., & Gil, M. H. (2010). Anti-glaucoma drug-loaded contact lenses prepared using supercritical solvent impregnation. 9.
- Courtenay, J. C., Deneke, C., Lanzoni, E. M., Costa, C. A., Bae, Y., Scott, J. L., & Sharma, R. I. (2018). Modulating cell response on cellulose surfaces ; tunable attachment and scaffold mechanics. Cellulose, 25, 925â??940.
- Cunha, A. G., Mougel, J.-B., Cathala, B., Berglund, L. A., & Capron, I. (2014). Preparation of Double Pickering Emulsions Stabilized by Chemically Tailored Nanocelluloses. Langmuir, 30, 9327â??9335.
- da Silva, C. V., Pereira, V. J., Costa, G. M. N., Cabral-Albuquerque, E. C. M., Vieira de Melo, S. A. B., de Sousa, H. C., â?¦ Braga, M. E. M. (2018). Supercritical solvent impregnation/deposition of spilanthol-enriched extracts into a commercial collagen/cellulose-based wound dressing. The Journal of Supercritical Fluids, 133, 503â??511.
- Dabiri, G., Damstetter, E., & Phillips, T. (2016). Choosing a Wound Dressing Based on Common Wound Characteristics. Advances in Wound Care, 5, 32â??41.
- Daltrey, D. C., Rhodes, B., & Chattwood, J. G. (1981). Investigation into the microbial flora of healing and non-healing decubitus ulcers. Journal of Clinical Pathology, 34, 701â??705.
- Davis, N. J., & Flitsch, S. L. (1993). Selective oxidation of monosaccharide derivatives to uronic acids. Tetrahedron Letters, 34, 1181â??1184.
- De France, K. J., Hoare, T., & Cranston, E. D. (2017). Review of Hydrogels and Aerogels Containing Nanocellulose. Chemistry of Materials, 29, 4609â??4631.
- Desmaisons, J., Boutonnet, E., Rueff, M., Dufresne, A., & Bras, J. (2017). A new quality index for benchmarking of different cellulose nanofibrils. Carbohydrate Polymers, 174, 318â??329.
- Dias, I. J., Trajano, E. R. I. S., Castro, R. D., Ferreira, G. L. S., Medeiros, H. C. M., & Gomes, D. Q. C. (2017). Antifungal activity of linalool in cases of Candida spp. Isolated from individuals with oral candidiasis. Brazilian Journal of Biology, 78, 368â??374.
- DÃez, I., Eronen, P., Ã?sterberg, M., Linder, M. B., Ikkala, O., & Ras, R. H. A. (2011). Functionalization of Nanofibrillated Cellulose with Silver Nanoclustersâ?¯ : Fluorescence and Antibacterial Activity. Macromolecular Bioscience, 11, 1185â??1191.
- Dimic-Misic, K., Gane, P. A. C., & Paltakari, J. (2013). Micro- and Nanofibrillated Cellulose as a Rheology Modifier Additive in CMC-Containing Pigment-Coating Formulations. Industrial & Engineering Chemistry Research, 52, 16066â??16083.
- Dong, S., Cho, H. J., Lee, Y. W., & Roman, M. (2014). Synthesis and Cellular Uptake of Folic Acid-Conjugated Cellulose Nanocrystals for Cancer Targeting. Biomacromolecules, 15, 1560â??1567.
- Donius, A. E., Liu, A., Berglund, L. A., & Wegst, U. G. K. (2014). Superior mechanical performance of highly porous, anisotropic nanocelluloseâ??montmorillonite aerogels prepared by freeze casting. Journal of the Mechanical Behavior of Biomedical Materials, 37, 88â??99.
- Dragostin, O. M., Samal, S. K., Dash, M., Lupascu, F., Panzariu, A., Tuchilus, C., â?¦ Profire, L. (2016). New antimicrobial chitosan derivatives for wound dressing applications. Carbohydrate

Polymers, 141, 28â??40.
- Dumanli, A. G., van der Kooij, H. M., Kamita, G., Reisner, E., Baumberg, J. J., Steiner, U., & Vignolini, S. (2014). Digital Color in Cellulose Nanocrystal Films. ACS Applied Materials & Interfaces, 6, 12302â??12306.
- Durand, H. (2019). Functionalization of cellulose nanofibrils for the development of biobased medical devices. UniversitÃ© Grenoble Alpes, Grenoble.
- Elazzouzi-Hafraoui, S., Nishiyama, Y., Putaux, J.-L., Heux, L., Dubreuil, F., & Rochas, C. (2008). The Shape and Size Distribution of Crystalline Nanoparticles Prepared by Acid Hydrolysis of Native Cellulose. Biomacromolecules, 9, 57â??65.
- Erol, S., Altoparlak, U., Akcay, M. N., Celebi, F., & Parlak, M. (2004). Changes of microbial flora and wound colonization in burned patients. Burns, 30, 357â??361.
- Esa, F., Tasirin, S. M., & Rahman, N. A. (2014). Overview of Bacterial Cellulose Production and Application. Agriculture and Agricultural Science Procedia, 2, 113â??119.
- Espino-PÃ©rez, E., Bras, J., Almeida, G., Relkin, P., Belgacem, N., Plessis, C., & Domenek, S. (2016). Cellulose nanocrystal surface functionalization for the controlled sorption of water and organic vapours. Cellulose, 23, 2955â??2970.
- Espino-PÃ©rez, E., Bras, J., Ducruet, V., Guinault, A., Dufresne, A., & Domenek, S. (2013). Influence of chemical surface modification of cellulose nanowhiskers on thermal, mechanical, and barrier properties of poly(lactide) based bionanocomposites. European Polymer Journal, 49, 3144â??3154.
- Eyley, S., & Thielemans, W. (2014). Surface modification of cellulose nanocrystals. Nanoscale, 6, 7764â??7779.
- Fanovich, M. A., Ivanovic, J., Zizovic, I., Misic, D., & Jaeger, P. (2016). Functionalization of polycaprolactone/hydroxyapatite scaffolds with Usnea lethariiformis extract by using supercritical CO 2. Materials Science and Engineering : C, 58, 204â??212.
- Fernandez Cid, M. V., van Spronsen, J., van der Kraan, M., Veugelers, W. J. T., Woerlee, G. F., & Witkamp, G. J. (2007). A significant approach to dye cotton in supercritical carbon dioxide with fluorotriazine reactive dyes. The Journal of Supercritical Fluids, 40, 477â??484.
- FernÃ¡ndez-Ponce, M. T., Medina-Ruiz, E., Casas, L., Mantell, C., & MartÃnez de la Ossa-FernÃ¡ndez, E. J. (2018). Development of cotton fabric impregnated with antioxidant mango polyphenols by means of supercritical fluids. The Journal of Supercritical Fluids, 140, 310â??319.
- Ferrer, A., Pal, L., & Hubbe, M. (2017). Nanocellulose in packagingâ?¯ : Advances in barrier layer technologies. Industrial Crops and Products, 95, 574â??582.
- Filpponen, I., & Argyropoulos, D. S. (2010). Regular Linking of Cellulose Nanocrystals via Click Chemistryâ?¯ : Synthesis and Formation of Cellulose Nanoplatelet Gels. Biomacromolecules, 11, 1060â??1066.
- Finger, S., Wiegand, C., Buschmann, H.-J., & Hipler, U.-C. (2013). Antibacterial properties of cyclodextrinâ??antiseptics-complexes determined by microplate laser nephelometry and ATP bioluminescence assay. International Journal of Pharmaceutics, 452, 188â??193.
- Fleck, C. A., & Simman, R. (2011). Modern Collagen Wound Dressingsâ?¯ : Function and Purpose. The Journal of the American College of Certified Wound Specialists, 2, 50â??54.
- Foster, E. J., Moon, R. J., Agarwal, U. P., Bortner, M. J., Bras, J., Camarero-Espinosa, S., â?¦ Youngblood, J. (2018). Current characterization methods for cellulose nanomaterials. Chemical Society Reviews, 47, 2609â??2679.
- Fujisawa, S., Okita, Y., Fukuzumi, H., Saito, T., & Isogai, A. (2011). Preparation and characterization of TEMPO-oxidized cellulose nanofibril films with free carboxyl groups. Carbohydrate Polymers, 84, 579â??583.

- Fukuzumi, H., Saito, T., Iwata, T., Kumamoto, Y., & Isogai, A. (2009). Transparent and High Gas Barrier Films of Cellulose Nanofibers Prepared by TEMPO-Mediated Oxidation. Biomacromolecules, 10, 162â??165.
- Fumagalli, M., Ouhab, D., Boisseau, S. M., & Heux, L. (2013). Versatile Gas-Phase Reactions for Surface to Bulk Esterification of Cellulose Microfibrils Aerogels. Biomacromolecules, 14, 3246â??3255.
- Fumagalli, M., Sanchez, F., Molina Boisseau, S., & Heux, L. (2013). Gas-phase esterification of cellulose nanocrystal aerogels for colloidal dispersion in apolar solvents. Soft Matter, 9, 11309â??11317.
- Fumagalli, M., Sanchez, F., Molina-Boisseau, S., & Heux, L. (2015). Surface-restricted modification of nanocellulose aerogels in gas-phase esterification by di-functional fatty acid reagents. Cellulose, 22, 1451â??1457.
- Furno, F., Morley, K. S., Wong, B., Sharp, B. L., Arnold, P. L., Howdle, S. M., â?¦ Reid, H. J. (2004). Silver nanoparticles and polymeric medical devicesâ?¯ : A new approach to prevention of infection ? The Journal of Antimicrobial Chemotherapy, 54, 1019â??1024.
- Gandini, A., & Belgacem, M. N. (2011). 1â??Modifying cellulose fiber surfaces in the manufacture of natural fiber composites. In N. E. Zafeiropoulos (Ã?d.), Interface Engineering of Natural Fibre Composites for Maximum Performance (p. 3â??42). Woodhead Publishing.
- GarcÃa-GonzÃ¡lez, C.A., Alnaief, M., & Smirnova, I. (2011). Polysaccharide-based aerogelsâ??Promising biodegradable carriers for drug delivery systems. Carbohydrate Polymers, 86, 1425â??1438.
- GarcÃa-GonzÃ¡lez, Carlos A., Barros, J., Rey-Rico, A., Redondo, P., GÃ³mez-Amoza, J. L., Concheiro, A., â?¦ Monteiro, F. J. (2018). Antimicrobial Properties and Osteogenicity of Vancomycin-Loaded Synthetic Scaffolds Obtained by Supercritical Foaming. ACS Applied Materials & Interfaces, 10, 3349â??3360.
- Geng, B., Wang, H., Wu, S., Ru, J., Tong, C., Chen, Y., â?¦ Liu, X. (2017). Surface-Tailored Nanocellulose Aerogels with Thiol-Functional Moieties for Highly Efficient and Selective Removal of Hg(II) Ions from Water. ACS Sustainable Chemistry & Engineering, 5, 11715â??11726.
- George, J., & Sabapathi, S. (2015). Cellulose nanocrystalsâ?¯ : Synthesis, functional properties, and applications. Nanotechnology, Science and Applications, 45.
- Gibas, I., & Janik, H. (2010). REVIEW : SYNTHETIC POLYMER HYDROGELS FOR BIOMEDICAL APPLICATIONS. Chemistry and Chemical Technology, 4, 8.
- Gibbons, S. (2008). Phytochemicals for Bacterial Resistanceâ??Strengths, Weaknesses and Opportunities. Planta Medica, 74, 594â??602.
- Gibson, L. J., & Ashby, M. F. (1999). Cellular Solidsâ?¯ : Structure and Properties. Cambridge : Cambridge University Press.
- Gicquel, E., Martin, C., Gauthier, Q., EngstrÃ¶m, J., Abbattista, C., Carlmark, A., â?¦ Bras, J. (2019). Tailoring Rheological Properties of Thermoresponsive Hydrogels through Block Copolymer Adsorption to Cellulose Nanocrystals. Biomacromolecules. https://doi.org/10.1021/acs.biomac.9b00327
- Gittard, S. D., Hojo, D., Hyde, G. K., Scarel, G., Narayan, R. J., & Parsons, G. N. (2010). Antifungal Textiles Formed Using Silver Deposition in Supercritical Carbon Dioxide. Journal of Materials Engineering and Performance, 19, 368â??373.
- GjÃ¸dsbÃ¸l, K., Christensen, J. J., Karlsmark, T., JÃ¸rgensen, B., Klein, B. M., & Krogfelt, K. A. (2006). Multiple bacterial species reside in chronic woundsâ?¯ : A longitudinal study. International Wound Journal, 3, 225â??231.

- GoussÃ©, C., Chanzy, H., Cerrada, M. L., & Fleury, E. (2004). Surface silylation of cellulose microfibrilsâ?¯ : Preparation and rheological properties. Polymer, 45, 1569â??1575.
- Gram, C. (1884). The differential staining of Schizomycetes in tissue sections and in dried preparations. Fortschitte der Medicin, 2, 185â??189.
- Grishkewich, N., Mohammed, N., Tang, J., & Tam, K. C. (2017). Recent advances in the application of cellulose nanocrystals. Current Opinion in Colloid & Interface Science, 29, 32â??45.
- Gristina, A. G., Naylor, P. T., & Myrvik, Q. (1989). The Race for the Surfaceâ?¯ : Microbes, Tissue Cells, and Biomaterials. Molecular Mechanisms of Microbial Adhesion, 177â??211.
- Guggenheim, M., Zbinden, R., Handschin, A. E., Gohritz, A., Altintas, M. A., & Giovanoli, P. (2009). Changes in bacterial isolates from burn wounds and their antibiogramsâ?¯ : A 20-year study (1986â??2005). Burns, 35, 553â??560.
- Guidetti, G., Atifi, S., Vignolini, S., & Hamad, W. Y. (2016). Flexible Photonic Cellulose Nanocrystal Films. Advanced Materials, 28, 10042â??10047.
- Guo, J., Fang, W., Welle, A., Feng, W., Filpponen, I., Rojas, O. J., & Levkin, P. A. (2016). Superhydrophobic and Slippery Lubricant-Infused Flexible Transparent Nanocellulose Films by Photoinduced Thiolâ??Ene Functionalization. ACS Applied Materials & Interfaces, 8, 34115â??34122.
- Gupta, S., MartoÃ¯a, F., OrgÃ©as, L., & Dumont, P. (2018). Ice-Templated Porous Nanocellulose-Based Materialsâ?¯ : Current Progress and Opportunities for Materials Engineering. Applied Sciences, 8, 2463.
- Habibi, Y. (2014). Key advances in the chemical modification of nanocelluloses. Chem. Soc. Rev., 43, 1519â??1542.
- Habibi, Y., Chanzy, H., & Vignon, M. R. (2006). TEMPO-mediated surface oxidation of cellulose whiskers. Cellulose, 13, 679â??687.
- Habibi, Y., & Dufresne, A. (2008). Highly Filled Bionanocomposites from Functionalized Polysaccharide Nanocrystals. Biomacromolecules, 9, 1974â??1980.
- Habibi, Y., Goffin, A.-L., Schiltz, N., Duquesne, E., Dubois, P., & Dufresne, A. (2008). Bionanocomposites based on poly(Îµ-caprolactone)-grafted cellulose nanocrystals by ring-opening polymerization. 18, 5002â??5010.
- Habibi, Y., Lucia, L. A., & Rojas, O. J. (2010). Cellulose Nanocrystalsâ?¯ : Chemistry, Self-Assembly, and Applications. Chemical Reviews, 110, 3479â??3500.
- Haimer, E., Wendland, M., Schlufter, K., Frankenfeld, K., Miethe, P., Potthast, A., â?¦ Liebner, F. (2010). Loading of Bacterial Cellulose Aerogels with Bioactive Compounds by Antisolvent Precipitation with Supercritical Carbon Dioxide. Macromolecular Symposia, 294, 64â??74.
- Han, Y., Zhang, X., Wu, X., & Lu, C. (2015). Flame Retardant, Heat Insulating Cellulose Aerogels from Waste Cotton Fabrics by in Situ Formation of Magnesium Hydroxide Nanoparticles in Cellulose Gel Nanostructures. ACS Sustainable Chemistry & Engineering, 3, 1853â??1859.
- Harrisson, S., Drisko, G. L., MalmstrÃ¶m, E., Hult, A., & Wooley, K. L. (2011). Hybrid Rigid/Soft and Biologic/Synthetic Materialsâ?¯ : Polymers Grafted onto Cellulose Microcrystals. Biomacromolecules, 12, 1214â??1223.
- Hasani, M., Cranston, E. D., Westman, G., & Gray, D. G. (2008). Cationic surface functionalization of cellulose nanocrystals. 4, 2238â??2244.
- Hawksworth, D. L., & LÃ¼cking, R. (2017). Fungal Diversity Revisitedâ?¯ : 2.2 to 3.8 Million Species. Microbiology Spectrum, 5. https://doi.org/10.1128/microbiolspec.FUNK-0052-2016
- Heath, L., & Thielemans, W. (2010). Cellulose nanowhisker aerogels. Green Chemistry, 12, 1448.
- Hendrix, W. A. (2001). Progress in Supercritical Co2Dyeing. Journal of Industrial Textiles, 31, 43â??56.

- Henriksson, M., Henriksson, G., Berglund, L. A., & LindstrÃ¶m, T. (2007). An environmentally friendly method for enzyme-assisted preparation of microfibrillated cellulose (MFC) nanofibers. European Polymer Journal, 43, 3434â??3441.
- Henriksson, Marielle, Berglund, L. A., Isaksson, P., LindstrÃ¶m, T., & Nishino, T. (2008). Cellulose Nanopaper Structures of High Toughness. Biomacromolecules, 9, 1579â??1585.
- Herdegen, V., Felix, A., Haseneder, R., Repke, J.-U., Leppchen-FrÃ¶hlich, K., Prade, I., & Meyer, M. (2014). Sterilization of Medical Products from Collagen by Means of Supercritical CO 2. Chemical Engineering & Technology, 37, 1891â??1895.
- Hoeng, F., Denneulin, A., & Bras, J. (2016). Use of nanocellulose in printed electronicsâ?¯ : A review. Nanoscale, 8, 13131â??13154.
- Hoepfner, S., Ratke, L., & Milow, B. (2008). Synthesis and characterisation of nanofibrillar cellulose aerogels. Cellulose, 15, 121â??129.
- Huang, J.-L., Li, C.-J., & G. Gray, D. (2014). Functionalization of cellulose nanocrystal films via â??thiolâ??eneâ?• click reaction. RSC Advances, 4, 6965â??6969.
- Hubbe, M. A., Ferrer, A., Tyagi, P., Yin, Y., Salas, C., Pal, L., & Rojas, O. J. (2017). Nanocellulose in Thin Films, Coatings, and Plies for Packaging Applicationsâ?¯ : A Review. BioResources, 12. https://doi.org/10.15376/biores.12.1.2143-2233
- Isogai, A., Saito, T., & Fukuzumi, H. (2011). TEMPO-oxidized cellulose nanofibers. Nanoscale, 3, 71â??85.
- Jaxel, J., Fontaine, L., Krenke, T., Hansmann, C., & Liebner, F. (2019). Bio-inspired conformational lipophilization of wood for scCO2-assisted colouring with disperse dyes. The Journal of Supercritical Fluids, 147, 116â??125.
- Jeschke, M. G., Sandmann, G., Schubert, T., & Klein, D. (2005). Effect of oxidized regenerated cellulose/collagen matrix on dermal and epidermal healing and growth factors in an acute wound. Wound Repair and Regeneration, 13, 324â??331.
- Jiang, F., & Hsieh, Y.-L. (2014). Assembling and Redispersibility of Rice Straw Nanocelluloseâ?¯ : Effect of tert -Butanol. ACS Applied Materials & Interfaces, 6, 20075â??20084.
- JimÃ©nez-Saelices, C., Seantier, B., Cathala, B., & Grohens, Y. (2017a). Effect of freeze-drying parameters on the microstructure and thermal insulating properties of nanofibrillated cellulose aerogels. Journal of Sol-Gel Science and Technology, 84, 475â??485.
- JimÃ©nez-Saelices, C., Seantier, B., Cathala, B., & Grohens, Y. (2017b). Spray freeze-dried nanofibrillated cellulose aerogels with thermal superinsulating properties. Carbohydrate Polymers, 157, 105â??113.
- Jin, H., Nishiyama, Y., Wada, M., & Kuga, S. (2004). Nanofibrillar cellulose aerogels. Colloids and Surfaces A : Physicochemical and Engineering Aspects, 240, 63â??67.
- Johansson, L.-S., Tammelin, T., M. Campbell, J., SetÃ¤lÃ¤, H., & Ã?sterberg, M. (2011). Experimental evidence on medium driven cellulose surface adaptation demonstrated using nanofibrillated cellulose. Soft Matter, 7, 10917â??10924.
- Jorfi, M., & Foster, E. J. (2015). Recent advances in nanocellulose for biomedical applications. Journal of Applied Polymer Science, 132, n/a-n/a.
- Jung, Y. H., Chang, T.-H., Zhang, H., Yao, C., Zheng, Q., Yang, V. W., â?¦ Ma, Z. (2015). High-performance green flexible electronics based on biodegradable cellulose nanofibril paper. Nature Communications, 6, 7170.
- Kabiri, R., & Namazi, H. (2014). Surface grafting of reduced graphene oxide using nanocrystalline cellulose via click reaction. Journal of Nanoparticle Research, 16, 2474.
- Kalan, L., & Grice, E. A. (2018). Fungi in the Wound Microbiome. Advances in Wound Care, 7, 247â??255.

- Kalemba, D., & Kunicka, A. (2003). Antibacterial and Antifungal Properties of Essential Oils. Current Medicinal Chemistry, 10, 913â??829.
- Kang, H., Liu, R., & Huang, Y. (2013). Cellulose derivatives and graft copolymers as blocks for functional materials. Polymer International, 62, 338â??344.
- Kapoor, G., Saigal, S., & Elongavan, A. (2017). Action and resistance mechanisms of antibioticsâ?¯ : A guide for clinicians. Journal of Anaesthesiology, Clinical Pharmacology, 33, 300â??305.
- Karim, Z., Claudpierre, S., Grahn, M., Oksman, K., & Mathew, A. P. (2016). Nanocellulose based functional membranes for water cleaningâ?¯ : Tailoring of mechanical properties, porosity and metal ion capture. Journal of Membrane Science, 514, 418â??428.
- Kasraian, K., & DeLuca, P. P. (1995). Thermal Analysis of the Tertiary Butyl Alcohol-Water System and Its Implications on Freeze-Drying. Pharmaceutical Research, 12, 484â??490.
- Kavoosi, G., Dadfar, S. M. M., & Purfard, A. M. (2013). Mechanical, Physical, Antioxidant, and Antimicrobial Properties of Gelatin Films Incorporated with Thymol for Potential Use as Nano Wound Dressing. Journal of Food Science, 78, E244â??E250.
- Kedzior, S. A., Zoppe, J. O., Berry, R. M., & Cranston, E. D. (2018). Recent advances and an industrial perspective of cellulose nanocrystal functionalization through polymer grafting. Current Opinion in Solid State and Materials Science. https://doi.org/10.1016/j.cossms.2018.11.005
- Khanjanzadeh, H., Behrooz, R., Bahramifar, N., Gindl-Altmutter, W., Bacher, M., Edler, M., & Griesser, T. (2018). Surface chemical functionalization of cellulose nanocrystals by 3-aminopropyltriethoxysilane. International Journal of Biological Macromolecules, 106, 1288â??1296.
- Kim, H., Youn, J. R., & Song, Y. S. (2018). Eco-friendly flame retardant nanocrystalline cellulose prepared via silylation. Nanotechnology, 29, 455702.
- Kim, J.-H., Lee, D., Lee, Y.-H., Chen, W., & Lee, S.-Y. (2018). Nanocellulose for Energy Storage Systemsâ?¯ : Beyond the Limits of Synthetic Materials. Advanced Materials, 0, 1804826.
- Kimura, S., & Itoh, T. (1996). New cellulose synthesizing complexes (terminal complexes) involved in animal cellulose biosynthesis in the tunicateMetandrocarpa uedai. Protoplasma, 194, 151â??163.
- Kistler, S. S. (1932). Coherent Expanded-Aerogels. The Journal of Pysical Chemistry, 16, 52â??64.
- Klemm, D., Cranston, E. D., Fischer, D., Gama, M., Kedzior, S. A., Kralisch, D., â?¦ RauchfuÃ?, F. (2018). Nanocellulose as a natural source for groundbreaking applications in materials scienceâ?¯ : Todayâ??s state. Materials Today, 21, 720â??748.
- Klemm, D., Kramer, F., Moritz, S., LindstrÃ¶m, T., Ankerfors, M., Gray, D., & Dorris, A. (2011). Nanocellulosesâ?¯ : A New Family of Nature-Based Materials. Angewandte Chemie International Edition, 50, 5438â??5466.
- Kobayashi, Y., Saito, T., & Isogai, A. (2014). Aerogels with 3D Ordered Nanofiber Skeletons of Liquid-Crystalline Nanocellulose Derivatives as Tough and Transparent Insulators. Angewandte Chemie International Edition, 53, 10394â??10397.
- Kolakovic, R., Laaksonen, T., Peltonen, L., Laukkanen, A., & Hirvonen, J. (2012). Spray-dried nanofibrillar cellulose microparticles for sustained drug release. International Journal of Pharmaceutics, 430, 47â??55.
- Kolakovic, R., Peltonen, L., Laukkanen, A., Hirvonen, J., & Laaksonen, T. (2012). Nanofibrillar cellulose films for controlled drug delivery. European Journal of Pharmaceutics and Biopharmaceutics, 82, 308â??315.

- KÃ¶rber, A., Schmid, E. N., Buer, J., Klode, J., Schadendorf, D., & Dissemond, J. (2010). Bacterial colonization of chronic leg ulcersâ?¯ : Current results compared with data 5 years ago in a specialized dermatology department. Journal of the European Academy of Dermatology and Venereology, 24, 1017â??1025.
- Kordikowski, A., Schenk, A. P., Van Nielen, R. M., & Peters, C. J. (1995). Volume expansions and vapor-liquid equilibria of binary mixtures of a variety of polar solvents and certain near-critical solvents. The Journal of Supercritical Fluids, 8, 205â??216.
- Korhonen, J. T., Hiekkataipale, P., Malm, J., Karppinen, M., Ikkala, O., & Ras, R. H. A. (2011). Inorganic Hollow Nanotube Aerogels by Atomic Layer Deposition onto Native Nanocellulose Templates. ACS Nano, 5, 1967â??1974.
- Kumar, S. S. D., Rajendran, N. K., Houreld, N. N., & Abrahamse, H. (2018). Recent advances on silver nanoparticle and biopolymer-based biomaterials for wound healing applications. International Journal of Biological Macromolecules, 115, 165â??175.
- Larsson, E., Sanchez, C. C., Porsch, C., Karabulut, E., WÃ¥gberg, L., & Carlmark, A. (2013). Thermo-responsive nanofibrillated cellulose by polyelectrolyte adsorption. European Polymer Journal, 49, 2689â??2696.
- Lavoine, N., Desloges, I., Dufresne, A., & Bras, J. (2012a). Microfibrillated cellulose â?? Its barrier properties and applications in cellulosic materialsâ?¯ : A review. Carbohydrate Polymers, 90, 735â??764.
- Lavoine, N., Desloges, I., Dufresne, A., & Bras, J. (2012b). Microfibrillated cellulose â?? Its barrier properties and applications in cellulosic materialsâ?¯ : A review. Carbohydrate Polymers, 90, 735â??764.
- Lavoine, N., Tabary, N., Desloges, I., Martel, B., & Bras, J. (2014). Controlled release of chlorhexidine digluconate using beta-cyclodextrin and microfibrillated cellulose. Colloids and Surfaces B-Biointerfaces, 121, 196â??205.
- Lee, K.-Y., AitomÃ¤ki, Y., Berglund, L. A., Oksman, K., & Bismarck, A. (2014). On the use of nanocellulose as reinforcement in polymer matrix composites. Composites Science and Technology, 105, 15â??27.
- Lewis, K. M., Spazierer, D., Urban, M. D., Lin, L., Redl, H., & Goppelt, A. (2013). Comparison of regenerated and non-regenerated oxidized cellulose hemostatic agents. European Surgery, 45, 213â??220.
- L. Hatton, F., EngstrÃ¶m, J., Forsling, J., MalmstrÃ¶m, E., & Carlmark, A. (2017). Biomimetic adsorption of zwitterionicâ??xyloglucan block copolymers to CNFâ?¯ : Towards tailored super-absorbing cellulose materials. RSC Advances, 7, 14947â??14958.
- Li, F., Biagioni, P., Bollani, M., Maccagnan, A., & Piergiovanni, L. (2013). Multi-functional coating of cellulose nanocrystals for flexible packaging applications. Cellulose, 20, 2491â??2504.
- Li, H., Fu, S., Peng, L., & Zhan, H. (2012). Surface modification of cellulose fibers with layer-by-layer self-assembly of lignosulfonate and polyelectrolyteâ?¯ : Effects on fibers wetting properties and paper strength. Cellulose, 19, 533â??546.
- Li, P., SirviÃ¶, J. A., Haapala, A., & Liimatainen, H. (2017). Cellulose Nanofibrils from Nonderivatizing Urea-Based Deep Eutectic Solvent Pretreatments. ACS Applied Materials & Interfaces, 9, 2846â??2855.
- Li, S., Bashline, L., Lei, L., & Gu, Y. (2014). Cellulose Synthesis and Its Regulation. The Arabidopsis Book / American Society of Plant Biologists, 12. https://doi.org/10.1199/tab.0169
- Li, W. L., Lu, K., & Walz, J. Y. (2012). Freeze casting of porous materialsâ?¯ : Review of critical factors in microstructure evolution. International Materials Reviews, 57, 37â??60.

- Li, W., Zhou, J., & Xu, Y. (2015). Study of the in vitro cytotoxicity testing of medical devices. Biomedical Reports, 3, 617â??620.
- Lin, N., & Dufresne, A. (2014). Nanocellulose in biomedicineâ?¯ : Current status and future prospect. European Polymer Journal, 59, 302â??325.
- Lin, N., GÃ¨ze, A., Wouessidjewe, D., Huang, J., & Dufresne, A. (2016). Biocompatible Double-Membrane Hydrogels from Cationic Cellulose Nanocrystals and Anionic Alginate as Complexing Drugs Codelivery. ACS Applied Materials & Interfaces, 8, 6880â??6889.
- Lin, N., Huang, J., & Dufresne, A. (2012). Preparation, properties and applications of polysaccharide nanocrystals in advanced functional nanomaterialsâ?¯ : A review. Nanoscale, 4, 3274.
- Lindman, B., KarlstrÃ¶m, G., & Stigsson, L. (2010). On the mechanism of dissolution of cellulose. Journal of Molecular Liquids, 156, 76â??81.
- Liu, X., Chen, J., Sun, P., Liu, Z.-W., & Liu, Z.-T. (2010). Grafting modification of ramie fibers with poly(2,2,2-trifluoroethyl methacrylate) via reversible additionâ??fragmentation chain transfer (RAFT) polymerization in supercritical carbon dioxide. Reactive and Functional Polymers, 70, 972â??979.
- Ljungberg, N., Bonini, C., Bortolussi, F., Boisson, C., Heux, L., & CavaillÃ©. (2005). New Nanocomposite Materials Reinforced with Cellulose Whiskers in Atactic Polypropyleneâ?¯ : Effect of Surface and Dispersion Characteristics. Biomacromolecules, 6, 2732â??2739.
- LÃ¶nnberg, H., Larsson, K., LindstrÃ¶m, T., Hult, A., & MalmstrÃ¶m, E. (2011). Synthesis of Polycaprolactone-Grafted Microfibrillated Cellulose for Use in Novel Bionanocompositesâ??Influence of the Graft Length on the Mechanical Properties. ACS Applied Materials & Interfaces, 3, 1426â??1433.
- Loste, E., Fraile, J., Fanovich, M. A., Woerlee, G. F., & Domingo, C. (2004). Anhydrous Supercritical Carbon Dioxide Method for the Controlled Silanization of Inorganic Nanoparticles. Advanced Materials, 16, 739â??744.
- Lozhechnikova, A., Dax, D., Vartiainen, J., WillfÃ¶r, S., Xu, C., & Ã?sterberg, M. (2014). Modification of nanofibrillated cellulose using amphiphilic block-structured galactoglucomannans. Carbohydrate Polymers, 110, 163â??172.
- Luan, J., Wu, J., Zheng, Y., Song, W., Wang, G., Guo, J., & Ding, X. (2012). Impregnation of silver sulfadiazine into bacterial cellulose for antimicrobial and biocompatible wound dressing. Biomedical Materials, 7, 065006.
- Lumia, G. (2002). Utilisation du CO supercritique comme solvant de substitution. Ed. Techniques IngÃ©nieur.
- Madigan, M. T., Martinko, J. M., & Brock, T. D. (2007). Brock biologie des micro-organismes. Paris : Pearson Education France.
- Madsen, S. M., Westh, H., Danielsen, L., & Rosdahl, V. T. (1996). Bacterial colonization and healing of venous leg ulcers. APMIS, 104, 895â??899.
- Magi, G., Marini, E., & Facinelli, B. (2015). Antimicrobial activity of essential oils and carvacrol, and synergy of carvacrol and erythromycin, against clinical, erythromycin-resistant Group A Streptococci. Frontiers in Microbiology, 6. https://doi.org/10.3389/fmicb.2015.00165
- Malkov, G. S., & Fisher, E. R. (2010). Pulsed Plasma Enhanced Chemical Vapor Deposition of Poly(allyl alcohol) onto Natural Fibers. Plasma Processes and Polymers, 7, 695â??707.
- Mano, V., Chimenti, S., Ruggeri, G., Pereira, F. V., & de Paula, E. L. (2017). P(CL-b-LLA) diblock copolymers grafting onto cellulosic nanocrystals. Polymer Bulletin, 74, 3673â??3688.
- Marchese, A., Barbieri, R., Coppo, E., Orhan, I. E., Daglia, M., Nabavi, S. F., â?¦ Ajami, M. (2017). Antimicrobial activity of eugenol and essential oils containing eugenolâ?¯ : A mechanistic

viewpoint. Critical Reviews in Microbiology, 43, 668â??689.
- Marchese, A., Orhan, I. E., Daglia, M., Barbieri, R., Di Lorenzo, A., Nabavi, S. F., â?¦ Nabavi, S. M. (2016). Antibacterial and antifungal activities of thymolâ?¯ : A brief review of the literature. Food Chemistry, 210, 402â??414.
- Mariano, M., Kissi, N. E., & Dufresne, A. (2014). Cellulose nanocrystals and related nanocompositesâ?¯ : Review of some properties and challenges. Journal of Polymer Science Part B : Polymer Physics, 52, 791â??806.
- Martin, C. (2015). Films multicouches Ã base de nanocristaux de celluloseâ?¯ : Relation entre structure et propriÃ©tÃ©s mÃ©caniques et/ou optiques (UniversitÃ© Grenoble Alpes). UniversitÃ© Grenoble Alpes.
- Martins, N. C. T., Freire, C. S. R., Pinto, R. J. B., Fernandes, S. C. M., Pascoal Neto, C., Silvestre, A. J. D., â?¦ Trindade, T. (2012). Electrostatic assembly of Ag nanoparticles onto nanofibrillated cellulose for antibacterial paper products. Cellulose, 19, 1425â??1436.
- MartoÃ¯a, F., Cochereau, T., Dumont, P. J. J., OrgÃ©as, L., Terrien, M., & Belgacem, M. N. (2016). Cellulose nanofibril foamsâ?¯ : Links between ice-templating conditions, microstructures and mechanical properties. Materials & Design, 104, 376â??391.
- Mascheroni, E., Rampazzo, R., Ortenzi, M. A., Piva, G., Bonetti, S., & Piergiovanni, L. (2016). Comparison of cellulose nanocrystals obtained by sulfuric acid hydrolysis and ammonium persulfate, to be used as coating on flexible food-packaging materials. Cellulose, 23, 779â??793.
- Mashkour, M., Afra, E., Resalati, H., & Mashkour, M. (2015). Moderate surface acetylation of nanofibrillated cellulose for the improvement of paper strength and barrier properties. RSC Advances, 5, 60179â??60187.
- Mayol, L., De Stefano, D., Campani, V., De Falco, F., Ferrari, E., Cencetti, C., â?¦ De Rosa, G. (2014). Design and characterization of a chitosan physical gel promoting wound healing in mice. Journal of Materials Science : Materials in Medicine, 25, 1483â??1493.
- Michalska-Sionkowska, M., Walczak, M., & Sionkowska, A. (2017). Antimicrobial activity of collagen material with thymol addition for potential application as wound dressing. Polymer Testing, 63, 360â??366.
- Miettunen, K., Vapaavuori, J., Tiihonen, A., Poskela, A., Lahtinen, P., Halme, J., & Lund, P. (2014). Nanocellulose aerogel membranes for optimal electrolyte filling in dye solar cells. Nano Energy, 8, 95â??102.
- Milovanovic, S., Stamenic, M., Markovic, D., Ivanovic, J., & Zizovic, I. (2015). Supercritical impregnation of cellulose acetate with thymol. The Journal of Supercritical Fluids, 97, 107â??115.
- Milovanovic, S., Stamenic, M., Markovic, D., Radetic, M., & Zizovic, I. (2013). Solubility of thymol in supercritical carbon dioxide and its impregnation on cotton gauze. The Journal of Supercritical Fluids, 84, 173â??181.
- Missoum, K., Belgacem, M. N., Barnes, J.-P., Brochier-Salon, M.-C., & Bras, J. (2012). Nanofibrillated cellulose surface grafting in ionic liquid. Soft Matter, 8, 8338.
- Missoum, K., Bras, J., & Belgacem, N. (2016). Patent No WO2015011364 (A2). Institut Polytechnique de Grenoble.
- Missoum, K., Sadocco, P., Causio, J., Belgacem, M. N., & Bras, J. (2014). Antibacterial activity and biodegradability assessment of chemically grafted nanofibrillated cellulose. Materials Science & Engineering C-Materials for Biological Applications, 45, 477â??483.
- Montanari, S., Roumani, M., Heux, L., & Vignon, M. R. (2005). Topochemistry of Carboxylated Cellulose Nanocrystals Resulting from TEMPO-Mediated Oxidation. Macromolecules, 38, 1665â??1671.

- Mulyadi, A., & Deng, Y. (2016). Surface modification of cellulose nanofibrils by maleated styrene block copolymer and their composite reinforcement application. Cellulose, 23, 519â??528.
- Munier, P., Gordeyeva, K., BergstrÃ¶m, L., & Fall, A. B. (2016). Directional Freezing of Nanocellulose Dispersions Aligns the Rod-Like Particles and Produces Low-Density and Robust Particle Networks. Biomacromolecules, 17, 1875â??1881.
- Najib, N., & Christodoulatos, C. (2019). Removal of arsenic using functionalized cellulose nanofibrils from aqueous solutions. Journal of Hazardous Materials, 367, 256â??266.
- Napavichayanun, S., Amornsudthiwat, P., Pienpinijtham, P., & Aramwit, P. (2015). Interaction and effectiveness of antimicrobials along with healing-promoting agents in a novel biocellulose wound dressing. Materials Science and Engineering : C, 55, 95â??104.
- Naseri, N., Deepa, B., Mathew, A. P., Oksman, K., & Girandon, L. (2016). Nanocellulose-Based Interpenetrating Polymer Network (IPN) Hydrogels for Cartilage Applications. Biomacromolecules, 17, 3714â??3723.
- Navarro, J. R. G., & BergstrÃ¶m, L. (2014). Labelling of N-hydroxysuccinimide-modified rhodamine B on cellulose nanofibrils by the amidation reaction. RSC Adv., 4, 60757â??60761.
- Navarro, J. R. G., Wennmalm, S., Godfrey, J., Breitholtz, M., & Edlund, U. (2016). Luminescent Nanocellulose Platformâ?¯ : From Controlled Graft Block Copolymerization to Biomarker Sensing. Biomacromolecules, 17, 1101â??1109.
- Nechyporchuk, O., Belgacem, M. N., & Bras, J. (2016). Production of cellulose nanofibrilsâ?¯ : A review of recent advances. Industrial Crops and Products, 93, 2â??25.
- Nechyporchuk, O., Pignon, F., & Belgacem, M. N. (2015). Morphological properties of nanofibrillated cellulose produced using wet grinding as an ultimate fibrillation process. Journal of Materials Science, 50, 531â??541.
- Nemoto, J., Saito, T., & Isogai, A. (2015). Simple Freeze-Drying Procedure for Producing Nanocellulose Aerogel-Containing, High-Performance Air Filters. ACS Applied Materials & Interfaces, 7, 19809â??19815.
- Nguyen, S. T., Feng, J., Ng, S. K., Wong, J. P. W., Tan, V. B. C., & Duong, H. M. (2014). Advanced thermal insulation and absorption properties of recycled cellulose aerogels. Colloids and Surfaces A : Physicochemical and Engineering Aspects, 445, 128â??134.
- Ni, X., Wang, J., Yue, Y., Cheng, W., Wang, D., & Han, G. (2018). Enhanced Antibacterial Performance and Cytocompatibility of Silver Nanoparticles Stabilized by Cellulose Nanocrystal Grafted with Chito-Oligosaccharides. Materials, 11. https://doi.org/10.3390/ma11081339
- Nickerson, R. F., & Habrle, J. A. (1947). Cellulose Intercrystalline Structure. Industrial & Engineering Chemistry, 39, 1507â??1512.
- Niiyama, H., & Kuroyanagi, Y. (2014). Development of novel wound dressing composed of hyaluronic acid and collagen sponge containing epidermal growth factor and vitamin C derivative. Journal of Artificial Organs, 17, 81â??87.
- Nishino, T., Kotera, M., Suetsugu, M., Murakami, H., & Urushihara, Y. (2011). Acetylation of plant cellulose fiber in supercritical carbon dioxide. Polymer, 52, 830â??836.
- Oksman, K., AitomÃ¤ki, Y., Mathew, A. P., Siqueira, G., Zhou, Q., Butylina, S., â?¦ Hooshmand, S. (2016). Review of the recent developments in cellulose nanocomposite processing. Composites Part A : Applied Science and Manufacturing, 83, 2â??18.
- Okuda, K., Sekida, S., Yoshinaga, S., & Suetomo, Y. (2004). Cellulose-synthesizing complexes in some chromophyte algae. Cellulose, 11, 365â??376.
- Olszewska, A., Eronen, P., Johansson, L.-S., Malho, J.-M., Ankerfors, M., LindstrÃ¶m, T., â?¦ Ã?sterberg, M. (2011). The behaviour of cationic NanoFibrillar Cellulose in aqueous media. Cellulose, 18, 1213.

- Ong, K. J., Shatkin, J. A., Nelson, K., Ede, J. D., & Retsina, T. (2017). Establishing the safety of novel bio-based cellulose nanomaterials for commercialization. NanoImpact, 6, 19â??29.
- Osong, S. H., Norgren, S., & Engstrand, P. (2016). Processing of wood-based microfibrillated cellulose and nanofibrillated cellulose, and applications relating to papermakingâ?¯ : A review. Cellulose, 23, 93â??123.
- Oâ??Sullivan, A. C. (1997). Celluloseâ?¯ : The structure slowly unravels. Cellulose, 4, 35.
- PÃ¤Ã¤kkÃ¶, M., Ankerfors, M., Kosonen, H., NykÃ¤nen, A., Ahola, S., Ã?sterberg, M., â?¦ LindstrÃ¶m, T. (2007). Enzymatic Hydrolysis Combined with Mechanical Shearing and High-Pressure Homogenization for Nanoscale Cellulose Fibrils and Strong Gels. Biomacromolecules, 8, 1934â??1941.
- Park, H.-S., Pham, C., Paul, E., Padiglione, A., Lo, C., & Cleland, H. (2017). Early pathogenic colonisers of acute burn woundsâ?¯ : A retrospective review. Burns, 43, 1757â??1765.
- Pasquini, D., Teixeira, E. de M., Curvelo, A. A. da S., Belgacem, M. N., & Dufresne, A. (2008). Surface esterification of cellulose fibresâ?¯ : Processing and characterisation of low-density polyethylene/cellulose fibres composites. Composites Science and Technology, 68, 193â??201.
- Pasternack, R. M., Rivillon Amy, S., & Chabal, Y. J. (2008). Attachment of 3-(Aminopropyl)triethoxysilane on Silicon Oxide Surfacesâ?¯ : Dependence on Solution Temperature. Langmuir, 24, 12963â??12971.
- Payen, A. (1838). MÃ©moire sur la composition du tissu propre des plantes et du ligneux. (Memoir on the composition of the tissue of plants and of woody [material]). Comptes Rendus Hebdomadaires des SÃ©ances de lâ??AcadÃ©mie des Sciences, 7, 1052â??1056.
- Peach, J., & Eastoe, J. (2014). Supercritical carbon dioxideâ?¯ : A solvent like no other. Beilstein Journal of Organic Chemistry, 10, 1878â??1895.
- Peng, B. L., Dhar, N., Liu, H. L., & Tam, K. C. (2011). Chemistry and applications of nanocrystalline cellulose and its derivativesâ?¯ : A nanotechnology perspective. The Canadian Journal of Chemical Engineering, 89, 1191â??1206.
- Pereira, R., Carvalho, A., Vaz, D. C., Gil, M. H., Mendes, A., & BÃ¡rtolo, P. (2013). Development of novel alginate based hydrogel films for wound healing applications. International Journal of Biological Macromolecules, 52, 221â??230.
- PÃ©rez-Madrigal, M. M., Edo, M. G., & AlemÃ¡n, C. (2016). Powering the futureâ?¯ : Application of cellulose-based materials for supercapacitors. Green Chemistry, 18, 5930â??5956.
- PÃ©rez-Recalde, M., Ruiz Arias, I. E., & Hermida, Ã?. B. (2018). Could essential oils enhance biopolymers performance for wound healing ? A systematic review. Phytomedicine, 38, 57â??65.
- Perrut, M. (2012). Sterilization and virus inactivation by supercritical fluids (a review). The Journal of Supercritical Fluids, 66, 359â??371.
- Peterson, J. W. (1996). Bacterial Pathogenesis. In S. Baron (Ã?d.), Medical Microbiology (4th Ã©d.). Galveston (TX) : University of Texas Medical Branch at Galveston.
- Phanthong, P., Guan, G., Karnjanakom, S., Hao, X., Wang, Z., Kusakabe, K., & Abudula, A. (2016). Amphiphobic nanocellulose-modified paperâ?¯ : Fabrication and evaluation. RSC Advances, 6, 13328â??13334.
- Pilehvar-Soltanahmadi, Y., Dadashpour, M., Mohajeri, A., Fattahi, A., Sheervalilou, R., & Zarghami, N. (2018). An Overview on Application of Natural Substances Incorporated with Electrospun Nanofibrous Scaffolds to Development of Innovative Wound Dressings. Mini Reviews in Medicinal Chemistry, 18, 414â??427.
- Pircher, N., Carbajal, L., Schimper, C., Bacher, M., Rennhofer, H., Nedelec, J.-M., â?¦ Liebner, F. (2016). Impact of selected solvent systems on the pore and solid structure of cellulose aerogels. Cellulose, 23, 1949â??1966.

- Pircher, N., Fischhuber, D., Carbajal, L., StrauÃ?, C., Nedelec, J.-M., Kasper, C., â?¦ Liebner, F. (2015). Preparation and Reinforcement of Dual-Porous Biocompatible Cellulose Scaffolds for Tissue Engineering. Macromolecular Materials and Engineering, 300, 911â??924.
- Pommerville, J. C. (2007). Alcamoâ??s fundamentals of microbiology. Sudbury, Mass. : Jones and Bartlett Publishers.
- PÃ¶tzinger, Y., Rabel, M., Ahrem, H., Thamm, J., Klemm, D., & Fischer, D. (2018). Polyelectrolyte layer assembly of bacterial nanocellulose whiskers with plasmid DNA as biocompatible non-viral gene delivery system. Cellulose, 25, 1939â??1960.
- Powell, L. C., Khan, S., Chinga-Carrasco, G., Wright, C. J., Hill, K. E., & Thomas, D. W. (2016). An investigation of Pseudomonas aeruginosa biofilm growth on novel nanocellulose fibre dressings. Carbohydrate Polymers, 137, 191â??197.
- Prabhu, S., & Poulose, E. K. (2012). Silver nanoparticlesâ?¯ : Mechanism of antimicrobial action, synthesis, medical applications, and toxicity effects. International Nano Letters, 2, 32.
- Qing, W., Wang, Y., Wang, Y., Zhao, D., Liu, X., & Zhu, J. (2016). The modified nanocrystalline cellulose for hydrophobic drug delivery. Applied Surface Science, 366, 404â??409.
- Rai, M., Yadav, A., & Gade, A. (2009). Silver nanoparticles as a new generation of antimicrobials. Biotechnology Advances, 27, 76â??83.
- RÃ¥nby, B. G. (1951). Fibrous macromolecular systems. Cellulose and muscle. The colloidal properties of cellulose micelles. Discuss. Faraday Soc., 11, 158â??164.
- Rashad, A., Mustafa, K., Heggset, E. B., & Syverud, K. (2017). Cytocompatibility of Wood-Derived Cellulose Nanofibril Hydrogels with Different Surface Chemistry. Biomacromolecules, 18, 1238â??1248.
- Rashad, A., Suliman, S., Mustafa, M., Pedersen, T. Ã?., Campodoni, E., Sandri, M., â?¦ Mustafa, K. (2019). Inflammatory responses and tissue reactions to wood-Based nanocellulose scaffolds. Materials Science and Engineering : C, 97, 208â??221.
- Rattaz, A., Mishra, S. P., Chabot, B., & Daneault, C. (2011). Cellulose nanofibres by sonocatalysed-TEMPO-oxidation. Cellulose, 18, 585.
- Reid, M. S., Villalobos, M., & Cranston, E. D. (2017). Benchmarking Cellulose Nanocrystalsâ?¯ : From the Laboratory to Industrial Production. Langmuir, 33, 1583â??1598.
- Reverdy, C., Belgacem, N., Moghaddam, M. S., Sundin, M., Swerin, A., & Bras, J. (2018). One-step superhydrophobic coating using hydrophobized cellulose nanofibrils. Colloids and Surfaces A : Physicochemical and Engineering Aspects, 544, 152â??158.
- Revol, J.-F., Bradford, H., Giasson, J., Marchessault, R. H., & Gray, D. G. (1992). Helicoidal self-ordering of cellulose microfibrils in aqueous suspension. International Journal of Biological Macromolecules, 14, 170â??172.
- Rodionova, G., Hoff, B., Lenes, M., Eriksen, Ã?., & Gregersen, Ã?. (2013). Gas-phase esterification of microfibrillated cellulose (MFC) films. Cellulose, 20, 1167â??1174.
- Rodionova, G., Lenes, M., Eriksen, Ã?., & Gregersen, Ã?. (2011). Surface chemical modification of microfibrillated celluloseâ?¯ : Improvement of barrier properties for packaging applications. Cellulose, 18, 127â??134.
- Rol, F., Belgacem, M. N., Gandini, A., & Bras, J. (2019). Recent advances in surface-modified cellulose nanofibrils. Progress in Polymer Science, 88, 241â??264.
- Romic, M. D., Klaric, M. S., Lovric, J., Pepic, I., Cetina-Cizmek, B., Filipovic-Grcic, J., & Hafner, A. (2016). Melatonin-loaded chitosan/Pluronic (R) F127 microspheres as in situ forming hydrogelâ?¯ : An innovative antimicrobial wound dressing. European Journal of Pharmaceutics and Biopharmaceutics, 107, 67â??79.

- Rudaz, C., Courson, R., Bonnet, L., Calas-Etienne, S., SallÃ©e, H., & Budtova, T. (2014). Aeropectinâ?¯ : Fully Biomass-Based Mechanically Strong and Thermal Superinsulating Aerogel. Biomacromolecules, 15, 2188â??2195.
- Russler, A., Wieland, M., Bacher, M., Henniges, U., Miethe, P., Liebner, F., â?¦ Rosenau, T. (2012). AKD-Modification of bacterial cellulose aerogels in supercritical CO2. Cellulose, 19, 1337â??1349.
- Ryan, K. J., Ray, C. G., Ahmad, N., Drew, W. L., & Plorde, J. J. (2009). Sherris Medical Microbiology, Fifth Edition. McGraw Hill Professional.
- Sacui, I. A., Nieuwendaal, R. C., Burnett, D. J., Stranick, S. J., Jorfi, M., Weder, C., â?¦ Gilman, J. W. (2014). Comparison of the Properties of Cellulose Nanocrystals and Cellulose Nanofibrils Isolated from Bacteria, Tunicate, and Wood Processed Using Acid, Enzymatic, Mechanical, and Oxidative Methods. ACS Applied Materials & Interfaces, 6, 6127â??6138.
- Sahana, T. G., & Rekha, P. D. (2018). Biopolymersâ?¯ : Applications in wound healing and skin tissue engineering. Molecular Biology Reports, 45, 2857â??2867.
- Å?ahin, Ä°., Ã?zbakÄ±r, Y., Ä°nÃ¶nÃ¼, Z., Ulker, Z., & Erkey, C. (2017). Kinetics of Supercritical Drying of Gels. Gels, 4, 3.
- Saini, S., Belgacem, M. N., & Bras, J. (2017). Effect of variable aminoalkyl chains on chemical grafting of cellulose nanofiber and their antimicrobial activity. Materials Science and Engineering : C, 75, 760â??768.
- Saini, S., Belgacem, M. N., Salon, M.-C. B., & Bras, J. (2016). Non leaching biomimetic antimicrobial surfaces via surface functionalisation of cellulose nanofibers with aminosilane. Cellulose, 23, 795â??810.
- Saini, S., Belgacem, N., Mendes, J., Elegir, G., & Bras, J. (2015). Contact Antimicrobial Surface Obtained by Chemical Grafting of Microfibrillated Cellulose in Aqueous Solution Limiting Antibiotic Release. ACS Applied Materials & Interfaces, 7, 18076â??18085.
- Saito, T., Hirota, M., Tamura, N., Kimura, S., Fukuzumi, H., Heux, L., & Isogai, A. (2009). Individualization of Nano-Sized Plant Cellulose Fibrils by Direct Surface Carboxylation Using TEMPO Catalyst under Neutral Conditions. Biomacromolecules, 10, 1992â??1996.
- Saito, T., & Isogai, A. (2004). TEMPO-Mediated Oxidation of Native Cellulose. The Effect of Oxidation Conditions on Chemical and Crystal Structures of the Water-Insoluble Fractions. Biomacromolecules, 5, 1983â??1989.
- Saito, T., Nishiyama, Y., Putaux, J.-L., Vignon, M., & Isogai, A. (2006). Homogeneous Suspensions of Individualized Microfibrils from TEMPO-Catalyzed Oxidation of Native Cellulose. Biomacromolecules, 7, 1687â??1691.
- SalajkovÃ¡, M., Berglund, L. A., & Zhou, Q. (2012). Hydrophobic cellulose nanocrystals modified with quaternary ammonium salts. Journal of Materials Chemistry, 22, 19798.
- Sankar, R., Elango, S., Vadodaria, K. K., Thinakar, S., & Kulkarni, A. (2016). Preparation of nanospheres from oxidised cellulose nanofibrils via polyelectrolyte complexation. International Journal of Nanoparticles, 9, 28â??40.
- Sanli, D., & Erkey, C. (2015). Silylation from supercritical carbon dioxideâ?¯ : A powerful technique for modification of surfaces. Journal of Materials Science, 50, 7159â??7181.
- Sanz-Moral, L. M., Rueda, M., Mato, R., & MartÃn, Ã•. (2014). View cell investigation of silica aerogels during supercritical dryingâ?¯ : Analysis of size variation and mass transfer mechanisms. The Journal of Supercritical Fluids, 92, 24â??30.
- Saxena, I. M., & Brown, R. M. (2005). Cellulose Biosynthesisâ?¯ : Current Views and Evolving Concepts. Annals of Botany, 96, 9â??21.

- Scherer, G. W. (2019). Stress and strain during supercritical drying. Journal of Sol-Gel Science and Technology, 90, 8â??19.
- Scognamiglio, F., Blanchy, M., Borgogna, M., Travan, A., Donati, I., Bosmans, J. W. A. M., â?¦ Marsich, E. (2017). Effects of supercritical carbon dioxide sterilization on polysaccharidic membranes for surgical applications. Carbohydrate Polymers, 173, 482â??488.
- Sehaqui, H., Liu, A., Zhou, Q., & Berglund, L. A. (2010). Fast Preparation Procedure for Large, Flat Cellulose and Cellulose/Inorganic Nanopaper Structures. Biomacromolecules, 11, 2195â??2198.
- Sehaqui, H., SalajkovÃ¡, M., Zhou, Q., & Berglund, L. A. (2010). Mechanical performance tailoring of tough ultra-high porosity foams prepared from cellulose I nanofiber suspensions. Soft Matter, 6, 1824.
- Sehaqui, H., Zhou, Q., & Berglund, L. A. (2011). High-porosity aerogels of high specific surface area prepared from nanofibrillated cellulose (NFC). Composites Science and Technology, 71, 1593â??1599.
- Sehaqui, H., Zhou, Q., Ikkala, O., & Berglund, L. A. (2011). Strong and Tough Cellulose Nanopaper with High Specific Surface Area and Porosity. Biomacromolecules, 12, 3638â??3644.
- Shah, C. B., Ma, M., & Hibbitt, D. A. (s. d.). Efficacy and Mode of Action of a New PHMB Impregnated Polyurethane Foam Dressing. 8.
- Shojaeiarani, J., Bajwa, D. S., & Hartman, K. (2019). Esterified cellulose nanocrystals as reinforcement in poly(lactic acid) nanocomposites. Cellulose, 26, 2349â??2362.
- Singh, D., Kumar, T. R. S., Gupt, V. K., & Chaturvedi, P. (2012). Antimicrobial activity of some promising plant oils, molecules and formulations. Indian Journal of Experimental Biology, 50, 714â??717.
- Singh, M., Kaushik, A., & Ahuja, D. (2016). Surface functionalization of nanofibrillated cellulose extracted from wheat strawâ?¯ : Effect of process parameters. Carbohydrate Polymers, 150, 48â??56.
- Singla, R., Soni, S., Kulurkar, P. M., Kumari, A., S., M., Patial, V., â?¦ Yadav, S. K. (2017). In situ functionalized nanobiocomposites dressings of bamboo cellulose nanocrystals and silver nanoparticles for accelerated wound healing. Carbohydrate Polymers, 155, 152â??162.
- Siqueira, G., Bras, J., & Dufresne, A. (2010). New Process of Chemical Grafting of Cellulose Nanoparticles with a Long Chain Isocyanate. Langmuir, 26, 402â??411.
- Siqueira, G., Tapin-Lingua, S., Bras, J., da Silva Perez, D., & Dufresne, A. (2010). Morphological investigation of nanoparticles obtained from combined mechanical shearing, and enzymatic and acid hydrolysis of sisal fibers. Cellulose, 17, 1147â??1158.
- SirÃ³, I., & Plackett, D. (2010). Microfibrillated cellulose and new nanocomposite materialsâ?¯ : A review. Cellulose, 17, 459â??494.
- SirviÃ¶, J. A., & Visanko, M. (2017). Anionic wood nanofibers produced from unbleached mechanical pulp by highly efficient chemical modification. Journal of Materials Chemistry A, 5, 21828â??21835.
- Skehan, P., Storeng, R., Scudiero, D., Monks, A., McMahon, J., Vistica, D., â?¦ Boyd, M. R. (1990). New Colorimetric Cytotoxicity Assay for Anticancer-Drug Screening. JNCI : Journal of the National Cancer Institute, 82, 1107â??1112.
- Smyth, M., Rader, C., Bras, J., & Foster, E. J. (2018). Characterization and mechanical properties of ultraviolet stimuli-responsive functionalized cellulose nanocrystal alginate composites. Journal of Applied Polymer Science, 135, 45857.
- Soares, G. C., Learmonth, D. A., Vallejo, M. C., Davila, S. P., GonzÃ¡lez, P., Sousa, R. A., & Oliveira, A. L. (2019). Supercritical CO2 technologyâ?¯ : The next standard sterilization

technique ? Materials Science and Engineering : C, 99, 520â??540.
- Song, S. H., Seong, K. Y., Kim, J. E., Go, J., Koh, E. K., Sung, J. E., â?¦ Hwang, D. Y. (2017). Effects of different cellulose membranes regenerated from Styela clava tunics on wound healing. International Journal of Molecular Medicine, 39, 1173â??1187.
- Song, W., Lee, J.-K., Gong, M. S., Heo, K., Chung, W.-J., & Lee, B. Y. (2018). Cellulose Nanocrystal-Based Colored Thin Films for Colorimetric Detection of Aldehyde Gases. ACS Applied Materials & Interfaces, 10, 10353â??10361.
- Spence, K. L., Venditti, R. A., Rojas, O. J., Habibi, Y., & Pawlak, J. J. (2010). The effect of chemical composition on microfibrillar cellulose films from wood pulpsâ?¯ : Water interactions and physical properties for packaging applications. Cellulose, 17, 835â??848.
- Springer, S., Zieger, M., Hipler, U. C., Lademann, J., Albrecht, V., Bueckle, R., â?¦ Huck, V. (2019). Multiphotonic staging of chronic wounds and evaluation of sterile, optical transparent bacterial nanocellulose coveringâ?¯ : A diagnostic window into human skin. Skin Research and Technology, 25, 68â??78.
- Steffensen, S. L., Vestergaard, M. H., Groenning, M., Alm, M., Franzyk, H., & Nielsen, H. M. (2015). Sustained prevention of biofilm formation on a novel silicone matrix suitable for medical devices. European Journal of Pharmaceutics and Biopharmaceutics : Official Journal of Arbeitsgemeinschaft Fur Pharmazeutische Verfahrenstechnik e.V, 94, 305â??311.
- Stenstad, P., Andresen, M., Tanem, B. S., & Stenius, P. (2008). Chemical surface modifications of microfibrillated cellulose. Cellulose, 15, 35â??45.
- Stergar, J., & Maver, U. (2016). Review of aerogel-based materials in biomedical applications. Journal of Sol-Gel Science and Technology, 77, 738â??752.
- Stone, Wright, Powell, & Devaraj. (2000). Healing at skin graft donor sites dressed with chitosan. British journal of plastic surgery, 53, 601â??606.
- Sulaeva, I., Henniges, U., Rosenau, T., & Potthast, A. (2015). Bacterial cellulose as a material for wound treatmentâ?¯ : Properties and modifications. A review. Biotechnology Advances, 33, 1547â??1571.
- Sun, F., Nordli, H. R., Pukstad, B., Kristofer Gamstedt, E., & Chinga-Carrasco, G. (2017). Mechanical characteristics of nanocellulose-PEG bionanocomposite wound dressings in wet conditions. Journal of the Mechanical Behavior of Biomedical Materials, 69, 377â??384.
- Sun, X., Wu, Q., Ren, S., & Lei, T. (2015). Comparison of highly transparent all-cellulose nanopaper prepared using sulfuric acid and TEMPO-mediated oxidation methods. Cellulose, 22, 1123â??1133.
- Sun, Y. (2014). Supercritical fluid particle design for poorly water-soluble drugs (review). Current Pharmaceutical Design, 20, 349â??368.
- Syverud, K., & Stenius, P. (2008). Strength and barrier properties of MFC films. Cellulose, 16, 75.
- Tan, C., Fung, B. M., Newman, J. K., & Vu, C. (2001). Organic Aerogels with Very High Impact Strength. Advanced Materials, 13, 644â??646.
- Tang, Y., Qiu, S., Wu, C., Miao, Q., & Zhao, K. (2016). Freeze cast fabrication of porous ceramics using tert-butyl alcoholâ??water crystals as template. Journal of the European Ceramic Society, 36, 1513â??1518.
- Tasset, S., Cathala, B., Bizot, H., & Capron, I. (2014). Versatile cellular foams derived from CNC-stabilized Pickering emulsions. RSC Advances, 4, 893â??898.
- Tavakolian, M., Okshevsky, M., van de Ven, T. G. M., & Tufenkji, N. (2018). Developing Antibacterial Nanocrystalline Cellulose Using Natural Antibacterial Agents. ACS Applied Materials & Interfaces, 10, 33827â??33838.

- Thielemans, W., R. Warbey, C., & A. Walsh, D. (2009). Permselective nanostructured membranes based on cellulose nanowhiskers. Green Chemistry, 11, 531â??537.
- Tian, C., Fu, S. Y., Meng, Q. J., & Lucia, L. A. (2016). New insights into the material chemistry of polycaprolactone-grafted cellulose nanofibrils/polyurethane nanocomposites. Cellulose, 23, 2457â??2473.
- Tingaut, P., Hauert, R., & Zimmermann, T. (2011). Highly efficient and straightforward functionalization of cellulose films with thiol-ene click chemistry. 21, 16066â??16076.
- Tingaut, P., Zimmermann, T., & Lopez-Suevos, F. (2010). Synthesis and Characterization of Bionanocomposites with Tunable Properties from Poly(lactic acid) and Acetylated Microfibrillated Cellulose. Biomacromolecules, 11, 454â??464.
- Torstensen, J. Ã?., Liu, M., Jin, S.-A., Deng, L., Hawari, A. I., Syverud, K., â?¦ Gregersen, Ã?. W. (2018). Swelling and Free-Volume Characteristics of TEMPO-Oxidized Cellulose Nanofibril Films. Biomacromolecules, 19, 1016â??1025.
- Trache, D., Hussin, M. H., Haafiz, M. K. M., & Thakur, V. K. (2017). Recent progress in cellulose nanocrystalsâ?¯ : Sources and production. Nanoscale, 9, 1763â??1786.
- Tran, A., Hamad, W. Y., & MacLachlan, M. J. (2018). Fabrication of Cellulose Nanocrystal Films through Differential Evaporation for Patterned Coatings. ACS Applied Nano Materials, 1, 3098â??3104.
- Tsekova, P. B., Spasova, M. G., Manolova, N. E., Markova, N. D., & Rashkov, I. B. (2017). Electrospun curcumin-loaded cellulose acetate/polyvinylpyrrolidone fibrous materials with complex architecture and antibacterial activity. Materials Science and Engineering : C, 73, 206â??214.
- Turbak, A. F., Snyder, F. W., & Sandberg, K. R. (1983). Microfibrillated cellulose, a new cellulose productâ?¯ : Properties, uses, and commercial potential. J. Appl. Polym. Sci. : Appl. Polym. Symp. ; (United States), 37. ConsultÃ© Ã lâ??adresse https://www.osti.gov/biblio/5062478
- Turner, R. J. (2017). Metalâ?•based antimicrobial strategies. Microbial Biotechnology, 10, 1062â??1065.
- Turon, X., Rojas, O. J., & Deinhammer, R. S. (2008). Enzymatic Kinetics of Cellulose Hydrolysisâ?¯ : A QCM-D Study. Langmuir, 24, 3880â??3887.
- Turtiainen, J., Hakala, T., Hakkarainen, T., & Karhukorpi, J. (2014). The Impact of Surgical Wound Bacterial Colonization on the Incidence of Surgical Site Infection After Lower Limb Vascular Surgeryâ?¯ : A Prospective Observational Study. European Journal of Vascular and Endovascular Surgery, 47, 411â??417.
- Valo, H., Arola, S., Laaksonen, P., Torkkeli, M., Peltonen, L., Linder, M. B., â?¦ Laaksonen, T. (2013). Drug release from nanoparticles embedded in four different nanofibrillar cellulose aerogels. European Journal of Pharmaceutical Sciences, 50, 69â??77.
- Van Dyke, M. C. C., Teixeira, M. M., & Barker, B. M. (2019). Fantastic yeasts and where to find themâ?¯ : The hidden diversity of dimorphic fungal pathogens. Current Opinion in Microbiology, 52, 55â??63.
- Vasconcelos, N. G., Croda, J., & Simionatto, S. (2018). Antibacterial mechanisms of cinnamon and its constituentsâ?¯ : A review. Microbial Pathogenesis, 120, 198â??203.
- Vignon, M., Montanari, S., Samain, D., & Condoret, J.-S. (2006). Patent No WO/2006/018552. ConsultÃ© Ã lâ??adresse https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2006018552
- Vosmanska, V., Kolarova, K., Rimpelova, S., & Svorcik, V. (2014). Surface modification of oxidized cellulose haemostat by argon plasma treatment. Cellulose, 21, 2445â??2456.

- Wang, J.-J., Yang, H.-C., Wu, M.-B., Zhang, X., & Xu, Z.-K. (2017). Nanofiltration membranes with cellulose nanocrystals as an interlayer for unprecedented performance. Journal of Materials Chemistry A, 5, 16289â??16295.
- Wang, T.-W., Sun, J.-S., Wu, H.-C., Tsuang, Y.-H., Wang, W.-H., & Lin, F.-H. (2006). The effect of gelatinâ??chondroitin sulfateâ??hyaluronic acid skin substitute on wound healing in SCID mice. Biomaterials, 27, 5689â??5697.
- Wang, X., Zhang, Y., Jiang, H., Song, Y., Zhou, Z., & Zhao, H. (2016). Fabrication and characterization of nano-cellulose aerogels via supercritical CO2 drying technology. Materials Letters, 183, 179â??182.
- Wang, Y., Wang, X., Xie, Y., & Zhang, K. (2018). Functional nanomaterials through esterification of celluloseâ?¯ : A review of chemistry and application. Cellulose, 25, 3703â??3731.
- White, L. D., & Tripp, C. P. (2000). Reaction of (3-Aminopropyl)dimethylethoxysilane with Amine Catalysts on Silica Surfaces. Journal of Colloid and Interface Science, 232, 400â??407.
- Wicklein, B., Kocjan, A., Salazar-Alvarez, G., Carosio, F., Camino, G., Antonietti, M., & BergstrÃ¶m, L. (2015). Thermally insulating and fire-retardant lightweight anisotropic foams based on nanocellulose and graphene oxide. Nature Nanotechnology, 10, 277â??283.
- Wiegand, C., Abel, M., Ruth, P., Elsner, P., & Hipler, U.-C. (2015). In vitro assessment of the antimicrobial activity of wound dressingsâ?¯ : Influence of the test method selected and impact of the pH. Journal of Materials Science. Materials in Medicine, 26. https://doi.org/10.1007/s10856-014-5343-9
- Wiegand, C., Heinze, T., & Hipler, U.-C. (2009). Comparative in vitro study on cytotoxicity, antimicrobial activity, and binding capacity for pathophysiological factors in chronic wounds of alginate and silver-containing alginate. Wound Repair and Regeneration, 17, 511â??521.
- Wiegand, C., Moritz, S., Hessler, N., Kralisch, D., Wesarg, F., Mueller, F. A., â?¦ Hipler, U.-C. (2015). Antimicrobial functionalization of bacterial nanocellulose by loading with polihexanide and povidone-iodine. Journal of Materials Science-Materials in Medicine, 26, 245.
- WillstÃ¤tter, R., & Zechmeister, L. (1913). Zur Kenntnis der Hydrolyse von Cellulose I. Berichte Der Deutschen Chemischen Gesellschaft, 46, 2401â??2412.
- Wolf, C., Maninger, J., Lederer, K., FrÃ¼hwirth-Smounig, H., Gamse, T., & Marr, R. (2006). Stabilisation of crosslinked ultra-high molecular weight polyethylene (UHMW-PE)-acetabular components with Î±-tocopherol. Journal of Materials Science : Materials in Medicine, 17, 1323â??1331.
- Xia, G., Lang, X., Kong, M., Cheng, X., Liu, Y., Feng, C., & Chen, X. (2016). Surface fluid-swellable chitosan fiber as the wound dressing material. Carbohydrate Polymers, 136, 860â??866.
- Xie, H., Chen, X., Shen, X., He, Y., Chen, W., Luo, Q., â?¦ Li, K. (2018). Preparation of chitosan-collagen-alginate composite dressing and its promoting effects on wound healing. International Journal of Biological Macromolecules, 107, 93â??104.
- Yadav, M. K., Chae, S.-W., Im, G. J., Chung, J.-W., & Song, J.-J. (2015). Eugenolâ?¯ : A Phyto-Compound Effective against Methicillin-Resistant and Methicillin-Sensitive Staphylococcus aureus Clinical Strain Biofilms. PLOS ONE, 10, e0119564.
- Yang, R., Aubrecht, K. B., Ma, H., Wang, R., Grubbs, R. B., Hsiao, B. S., & Chu, B. (2014). Thiol-modified cellulose nanofibrous composite membranes for chromium (VI) and lead (II) adsorption. Polymer, 55, 1167â??1176.
- Yeo, J.-S., & Hwang, S.-H. (2015). Preparation and characteristics of polypropylene-graft-maleic anhydride anchored micro-fibriled celluloseâ?¯ : Its composites with polypropylene. Journal of Adhesion Science and Technology, 29, 185â??194.

- Yeo, J.-S., Kim, O. Y., & Hwang, S.-H. (2017). The effect of chemical surface treatment on the fracture toughness of microfibrillated cellulose reinforced epoxy composites. Journal of Industrial and Engineering Chemistry, 45, 301â??306.
- Yin, C., & Shen, X. (2007). Synthesis of cellulose carbamate by supercritical CO2-assisted impregnationâ?¯ : Structure and rheological properties. European Polymer Journal, 43, 2111â??2116.
- Young, K. D. (2007). Bacterial morphologyâ?¯ : Why have different shapes ? Current opinion in microbiology, 10, 596â??600.
- Yuan, H., Nishiyama, Y., & Kuga, S. (2005). Surface Esterification of Cellulose by Vapor-Phase Treatment With Trifluoroacetic Anhydride. Cellulose, 12, 543â??549.
- Yuan, H., Nishiyama, Y., Wada, M., & Kuga, S. (2006). Surface Acylation of Cellulose Whiskers by Drying Aqueous Emulsion. Biomacromolecules, 7, 696â??700.
- Zdanowicz, M. (2018). Deep eutectic solvents for polysaccharides processing. A review. Carbohydrate Polymers, 20.
- Zhang, F., Wu, W., Zhang, X., Meng, X., Tong, G., & Deng, Y. (2016). Temperature-sensitive poly-NIPAm modified cellulose nanofibril cryogel microspheres for controlled drug release. Cellulose, 23, 415â??425.
- Zhang, X., Liu, M., Wang, H., Yan, N., Cai, Z., & Yu, Y. (2019). Ultralight, hydrophobic, anisotropic bamboo-derived cellulose nanofibrils aerogels with excellent shape recovery via freeze-casting. Carbohydrate Polymers, 208, 232â??240.
- Zhang, Y., Yin, C., Zhang, Y., & Wu, H. (2013). Synthesis and Characterization of Cellulose Carbamate from Wood Pulp, Assisted by Supercritical Carbon Dioxide. BioResources, 8, 1398â??1408.
- Zhang, Zhao, Chang, H., Xue, B., Zhang, S., Li, X., Wong, W.-K., â?¦ Zhu, X. (2018). Near-infrared and visible dual emissive transparent nanopaper based on Yb(III)â??carbon quantum dots grafted oxidized nanofibrillated cellulose for anti-counterfeiting applications. Cellulose, 25, 377â??389.
- Zhang, Zheng, SÃ¨be, G., Rentsch, D., Zimmermann, T., & Tingaut, P. (2014). Ultralightweight and Flexible Silylated Nanocellulose Sponges for the Selective Removal of Oil from Water. Chemistry of Materials, 26, 2659â??2668.
- Zheng, H., Xu, Y., Zhang, J., Xiong, X., Yan, J., & Zheng, L. (2017). An ecofriendly dyeing of wool with supercritical carbon dioxide fluid. Journal of Cleaner Production, 143, 269â??277.
- Zheng, Q., Cai, Z., Ma, Z., & Gong, S. (2015). Cellulose Nanofibril/Reduced Graphene Oxide/Carbon Nanotube Hybrid Aerogels for Highly Flexible and All-Solid-State Supercapacitors. ACS Applied Materials & Interfaces, 7, 3263â??3271.
- Zhou, S., Liu, P., Wang, M., Zhao, H., Yang, J., & Xu, F. (2016). Sustainable, Reusable, and Superhydrophobic Aerogels from Microfibrillated Cellulose for Highly Effective Oil/Water Separation. ACS Sustainable Chemistry & Engineering, 4, 6409â??6416.
- Zhu, H., Fang, Z., Preston, C., Li, Y., & Hu, L. (2013). Transparent paperâ?¯ : Fabrications, properties, and device applications. Energy & Environmental Science, 7, 269â??287.
- Zizovic, I., Senerovic, L., Moric, I., Adamovic, T., Jovanovic, M., Krusic, M. K., â?¦ Milovanovic, S. (2018). Utilization of supercritical carbon dioxide in fabrication of cellulose acetate films with anti-biofilm effects against Pseudomonas aeruginosa and Staphylococcus aureus. The Journal of Supercritical Fluids, 140, 11â??20.
- Zu, G., Shen, J., Zou, L., Wang, F., Wang, X., Zhang, Y., & Yao, X. (2016). Nanocellulose-derived highly porous carbon aerogels for supercapacitors. Carbon, 99, 203â??211.