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## LGP2 - Publications scientifiques dans des revues à comité de lecture avec Impact Factor (IF) - 2015

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1. BARDET R., BELGACEM N., BRAS J.

*Flexibility and color monitoring of cellulose nanocrystal iridescent solid films using anionic or neutral polymers.* ACS Applied Materials & Interfaces, 7(7), 4010-4018 (2015)

2. BARDET R., REVERDY C., BELGACEM N., LEIRSET I., SYVERUD K., BARDET M., BRAS J.

*Substitution of nanoclay in high gas barrier films of cellulose nanofibrils with cellulose nanocrystals and thermal treatment.* Cellulose, 22(2), 1227-1241 (2015)

3. BARDET R., ROUSSEL F., COINDEAU S., BELGACEM N., BRAS J.

*Engineered pigments based on iridescent cellulose nanocrystal films.* Carbohydrate Polymers 122, 367-375 (2015)

4. BARDET R., SILLARD C., BELGACEM N., BRAS J.

*Self assembly of cellulose nanocrystals with fluorescent agent in iridescent films.* Cellulose Chemistry and Technology, 49(7-8), 587-595 (2015)

5. BARHOUM A., VAN ASSCHE G., VAN LOKEREN L., RAHIER H., DUFRESNE A.  
*In situ surface modification and its roles for dispersing nanoscale CaCO<sub>3</sub> filler in polymeric materials.* Journal of Materials Science, 50(24), 7908-7918 (2015)

6. BENDAHOU A., HAJLANE A., DUFRESNE A., BOUFI S., KADDAMI H.  
*Esterification and amidation for grafting long aliphatic chains on to cellulose nanocrystals: a comparative study.* Research on Chemical Intermediates, 41(7), 4293-4310 (2015)

7. BENEVENTI D., CHAUSSY D., ZENO E.  
*Rapid nanopaper production by spray deposition of concentrated MFC slurries.* Industrial Crops and Products, 72 Special Issue, 200-205 (2015)

8. BENHAMOU K., KADDAMI H., MAGNIN A., DUFRESNE A., AHMAD A.  
*Bio-based polyurethane reinforced with cellulose nanofibers: A comprehensive investigation on the effect of interface.* Carbohydrate Polymers, 122, 202-211 (2015)

9. BETTAIEB F., KHIARI R., DUFRESNE A., MHENNI F., BELGACEM N.  
*Mechanical and thermal properties of Posidonia oceanica cellulose nanocrystal reinforced polymer.* Carbohydrate Polymers, 123, 99-104 (2015)

10. BETTAIEB F., KHIARI R., DUFRESNE A., MHENNI M.F., PUTAUX J.L., BOUFI S.  
*Nanofibrillar cellulose from Posidonia oceanica: properties and morphological features.* Industrial Crops and Products, 72, 97-106 (2015)

11. BETTAIEB F., KHIARI R., HASSAN M.L., BELGACEM M.N., BRAS J., DUFRESNE A., MHENNI M.F.  
*Preparation and characterization of new cellulose nanocrystals from marine biomass Posidonia oceanica.* Industrial Crops and Products, 72, 175-182 (2015)

12. BETTAIEB F., NECHYPORCHUK O., KHIARI R., MHENNI M.F., DUFRESNE A., BELGACEM M.N.  
*Effect of the oxidation treatment on the production of cellulose nanofiber suspensions from Posidonia oceanica: The rheological aspect.* Carbohydrate Polymers, 134, 664-672 (2015)

13. BOUCHER J., CHIRAT C., LACHENAL D.  
*Comparison between acid hydrolysis and two-step autohydrolysis for hemicellulosic ethanol production.* Cellulose Chemistry and Technology, 49(3-4), 303-308 (2015)

14. BOUROUROU M., HOLZINGER M., ELOUARZAKI K., LE GOFF A., BOSSARD F., ROSSIGNOL C., DJURADO E., MARTIN V., CURTIL D., CHAUSSY D., MAAREF A., COSNIER S.

*Laccase wiring on tree-standing electrospun carbon nano-fibers using a mediator plug*. Chemical Communication, 51(78) 14574-14577 (2015)

15. CHAN C.H., CHIA C.H., ZAKARIA S., AHMAD A., DUFRESNE A., TSHAI K.Y. *Low filler content cellulose nanocrystal and graphene oxide reinforced polylactic acid film composites*. Polymer Research Journal, 9(1), 165-177 (2015)

16. CHEN J., LIN N., HUANG J., DUFRESNE A. *Highly alkynyl-functionization of cellulose nanocrystals and advanced nanocomposites thereof via click chemistry*. Polymer Chemistry, 6(24), 4385-4395 (2015)

17. CONDES M.C., ANON M.C., MAURI A.N., DUFRESNE A. *Amaranth protein films reinforced with maize starch nanocrystals*. Food Hydrocolloids, 47, 146-157 (2015)

18. DIAB M., CURTIL D., EL-SHINNAWY N., HASSAN M.L., ZEID I.F., MAURET E. *Biobased polymers and cationic microfibrillated cellulose as retention and drainage aids in papermaking: Comparison between softwood and bagasse pulps*. Industrial Crops and Products, 72, 34-45 (2015)

19. DUVAL A., BOISSEAU MOLINA S., CHIRAT C. *Fractionation of lignosulfonates: comparison of ultrafiltration and ethanol solubility to obtain a set of fractions with distinct properties*. Holzforschung, 69(2), 127-134 (2015)

20. EL ICHI S., ZEBDA A., ALCARAZ J.P., LAAROUSSI A., BOUCHER F., BOUTONNAT J., REVERDY-BRUAS N., CHAUSSY D., BELGACEM N. *Bioelectrodes modified with chitosan for long-term energy supply from the body*. Energy & Environmental Science, 8(3), 1017-1026 (2015)

21. EL WAKIL N., HASSAN E.A., ABOUZEID R., DUFRESNE A. *Development of wheat gluten/nanocellulose/titanium dioxide nanocomposites for active food packaging*. Carbohydrate Polymers, 124, 337-346 (2015)

22. FERREIRA KROL L., BENEVENTI D., ALLOIN F., CHAUSSY D. *Microfibrillated cellulose/SiO<sub>2</sub> composite nanopapers produced by spray deposition*. Journal of Materials Science, 50(11), 4095-4103 (2015)

23. HALMA M., LACHENAL D., MARLIN N., DERONZIER A., BROCHIER-SALON M.C., ZARUBIN M. *H<sub>2</sub>O<sub>2</sub> oxidation of lignin model dimers catalyzed by copper(II)-phenanthroline*. Industrial Crops and Products 74, 514-522 (2015)

24. HASSAN M.L., BRAS J., MAURET E., FADEL S.M., HASSAN E.A., EL-WAKIL N.A. *Palm rachis microfibrillated cellulose and oxidized-microfibrillated cellulose for improving paper sheets properties of unbeaten softwood and bagasse pulps*. Industrial Crops and Products, 64, 9-15 (2015)

25. HOENG F., DENNEULIN A., NEUMAN C., BRAS J.  
*Charge density modification of carboxylated cellulose nanocrystals for stable silver nanoparticles suspension preparation.* Journal of Nanoparticle Research, 17(6), 1-14 (2015)
26. HUET M., ROUBAUD A., LACHENAL D.  
*Conversion of sulfur-free black liquor into fuel gas by supercritical water gasification.* Horzforschung, 69(6), 751-760 (2015)
27. JIN Y., HENGL N., BAUP S., PIGNON F., GONDREXON N., SZTUCKI M., ROMDHANE A., GUILLET A., AUROUSSEAU M.  
*Ultrasonic assisted cross-flow ultrafiltration of starch and cellulose nanocrystals suspensions : characterization at multi-scales.* Carbohydrate Polymers, 124, 66-76 (2015)
28. JONOABI M., OLADI R., DAVOUDPOUR Y., OKSMAN K., DUFRESNE A., HAMZEH Y., DAVOODI R.  
*Different preparation methods and properties of nanostructured cellulose from various natural resources and residues: A review.* Cellulose, 22(2), 935-969 (2015)
29. KARGARZADEH H., ABDULLAH I., THOMAS R., DUFRESNE A., THOMAS S., HASSAN A., AHMAD I.  
*Functionalized liquid natural rubber and liquid epoxidized natural rubber: A promising green toughening agent for polyester.* Journal of Applied Polymer Science, 132(3), 41292/1-41292/15 (2015)
30. KARGARZADEH H., SHELTAMI M., AHMAD I., ABUDLLAH I., DUFRESNE A.  
*Cellulose nanocrystals: A promising toughening agent for unsaturated polyester nanocomposite.* Polymer, 56, 346-357 (2015)
31. KARGARZADEH H., SHELTAMI M., AHMAD I., ABUDLLAH I., DUFRESNE A.  
*Toughened polyester cellulose nanocomposites: Effects of cellulose nanocrystals and liquid epoxidized natural rubber on morphology and mechanical properties.* Industrial Crops and Products, 72, 125-132 (2015)
32. KARGARZADEH H., SHELTAMI R.M., AHMAD I., ABDULLAH I., DUFRESNE A.  
*Cellulose nanocrystal reinforced liquid natural rubber toughened unsaturated polyester: Effect of filler content and surface treatment on the morphology, thermal, mechanical and viscoelastic properties.* Polymer, 71, 51-59 (2015)
33. LAVOINE N., DESLOGES I., MANSHIP B., BRAS J.  
*Antibacterial paperboard packaging using microfibrillated cellulose.* Journal of Food Science and Technology, 52(9), 5590-5600 (2015)

34. MARIANO M., EL KISSI N., DUFRESNE A.  
*Melt processing of cellulose nanocrystal reinforced polycarbonate from a masterbatch process*. European Polymer Journal, 69, 208-223 (2015)
35. MORELLI LIPPARELLI C., MAHROUS M., BELGACEM N., BRANCIFORTI M.C., BRETAS R., ELIDA S., BRAS J.  
*Natural copaiba oil as antibacterial agent for bio-based active packaging*. Industrial Crops and Products, 70, 134-141 (2015)
36. MORTHA G., MARCON J., DALLERAC D., MARLIN N., VALLEE C., CHARON N., LE MASLE A.  
*Depolymerization of cellulose during cold acidic chlorite treatment*. Holzforschung, 69(6), 731-736 (2015)
37. NECHYPORCHUK O., PIGNON F., BELGACEM N.  
*Morphological properties of nanofibrillated cellulose produced using wet grinding as an ultimate fibrillation process*. Journal of Materials Science, 50(2), 531-541 (2015)
38. OLIVEIRA DE CASTRO D., FROLLINI E., RUVOLO-FILHO A., DUFRESNE A.  
*Green polyethylene and curauà cellulose nanocrystal based nanocomposites: Effect of vegetable oils as coupling agent and processing technique*. Journal of Polymer Science: Part B Polymer Physics, 53(14), 1010-1019 (2015)
39. OLIVEIRA DE CASTRO D., BRAS J., GANDINI A., BELGACEM N.  
*Surface grafting of cellulose nanocrystals with natural antimicrobial rosin mixture using a green process*. Carbohydrate Polymers, 137, 1-8 (2015)
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*Lignopolyurethanic materials based on oxypropylated sodium lignosulfonate and castor oil blends*. Industrial Crops and Products, 72, 77-86 (2015)
41. PEREIRA, L. NOVO, BRAS J., GARCIA A., BELGACEM N., CURVELO A.A.S.  
*Subcritical water : A method for green production of cellulose nanocrystals*. ACS Sustainable Chemistry & Engineering, 3(11), 2839-2846 (2015)
42. ROMDHANE A., AUROUSSEAU M., GUILLET A., MAURET E.  
*Cross flow microfiltration of starch nanocrystals suspensions*. Canadian Journal of Chemical Engineering, 93(2), 412-418 (2015)
43. ROMDHANE A., AUROUSSEAU M., GUILLET A., MAURET E.  
*Effect of pH and ionic strength on the electrical charge and particle size distribution of starch nanocrystal suspensions*. Starch/Staerke, 67(3-4), 319-327 (2015)
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*Use of microfibrillated cellulose/lignosulfonate blends as carbon precursors: impact of hydrogel rheology on 3D printing*. Industrial & Engineering Chemistry Research, 54(43),

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45. SAINI S., BELGACEM N., MENDES J., ELEGIR G., BRAS J.

*Contact antimicrobial surface obtained by chemical grafting of microfibrillated cellulose in aqueous solution limiting antibiotic release.* ACS Applied Materials & Interfaces, 7(32), 18076-18085 (2015)

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*Surface cationized cellulose nanofibrils for the production of contact active antimicrobial surfaces.* Carbohydrate Polymers, 135, 239-247 (2015)

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*Natural active molecule chemical grafting on the surface of microfibrillated cellulose for fabrication of contact active antimicrobial surfaces.* Industrial Crops and Products, 78, 82-90 (2015)

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*Carboxymethylcellulose (CMC) as a model compound of cellulose fibers and polyamideamine epichlorohydrin (PAE)-CMC interactions as a model of PAE-fibers interactions of PAE-based wet strength papers.* Journal of Applied Polymer Science, 132(26), 42144/1-42144/10 (2015)

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*The effects of sodium chloride (NaCl) and residues of cellulosic fibres derived from sodium carboxymethylcellulose (NaCMC) synthesis on thermal and mechanical properties of CMC films.* Industrial Crops and Products, 72, 87-96 (2015)

50. THIBERT S., JOURDAN J., BECHEVET B., CHAUSSY D., REVERDY-BRUAS N., BENEVENTI D.

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51. TIMHADJELT L., SERIER A., BELGACEM N., BRAS J.

*Elaboration of cellulose based nanobiocomposite: Effect of cellulose nanocrystals surface treatment and interface "melting".* Industrial Crops and Products, 72, 7-15 (2015)

52. TRICOT F., VOCANSON F., CHAUSSY D., BENEVENTI D., PARTY M., DESTOUCHES N.

*Flexible photochromic Ag:TiO<sub>2</sub> thin films elaborated by ink-jet and flexography printing processes.* RSC Advances, 5, 84560-84564 (2015)

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55. ZERROUATI A., RUEFF M., BOUCHEKIMA B.

*Study of paper transverse shrinkage during thermal drying.* Drying Technology, 33(10), 1170-1179 (2015)

56. ZOLIN L., DESTRO M., CHAUSSY D., PENAZZI N., GERBALDI C., BENEVENTI D.

*Aqueous processing of paper separators by filtration dewatering: towards Li-ion paper batteries.* Journal of Materials Chemistry A, 3(28), 14894-14901 (2015)

## Recherche

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