

Dr. Julien BRAS

French nationality, Associate Professor, HDR

Born 13th of March 1978, Clamart (92), Married, 1 child

H-index=67, Total citations >20500

Grenoble INP Pagora - UGA, 241 rue de la papeterie, 38400 St Martin d'Hères, France

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EDUCATION, EMPLOYMENT & AWARDS

2021-... Associate Professor at Grenoble INP Pagora & LGP2, France

2022-... Institut Universitaire de France (IUF) Senior member, (5y) excellence in science in France (top 2% of French professor)

2019-2021 Senior Expert and department Head at institute of packaging science Nestle Research Center Lausanne, Switzerland

2006-2019 Associate Professor ('Maître de Conférences') at Grenoble INP Pagora & LGP2, France

2016-2019 Institut Universitaire de France (IUF) Junior member, excellence in science in France (top 2% of French professor)

2017 Tappi Nanocellulose Mid Term Career International Award

2017 French "Academy of Science" Major Prize of Innovation (IMT Espoir)

2011 Ability to supervise Researchers (HDR) – Grenoble INP Pagora, Grenoble, France

2004-06: Innovation manager, Ahlstrom, Crepe Paper Product line, France, Finland, Italy.

2004 PhD in renewable resources science – INRA/ENSIACET, Toulouse, France

2001 Engineer in high school of Chemistry (ENSCT, France)

2001 Master in chemistry of renewable resources- Toulouse Univ.

CURRENT RESEARCH ACTIVITIES

Main competences in: cellulose fibres, & nanocellulose, cellulose functionalization and derivatives, Biocomposites & Nanocomposites, chemical Surface grafting, Barrier properties, antimicrobial surface, Specialty paper & active packaging, biomaterial process engineering, biopackaging, coating process

o **Nanocellulose** production, characterization of micro-fibrillated cellulose and cellulose nanocrystals, chemical pretreatment

o **Chemical grafting:** surface grafting of molecule in solvent, ionic liquid, aqueous system with several families of molecules or polymer and several strategies (grafting from, grafting onto, click, silane)

o **Materials:** Polymer (nano)composites and fibrous structures: preparation & characterization, specialty paper, aerogel, foam,

o **Application domains:** paper and packaging industries, polymer composites, biomedical & cosmetic (controlled release)

SCIENTIFIC PRODUCTION

o 194 journal papers with IF

o 61 international conf.(oral), 29 invited speaker

o 170 international conf. proceedings (poster-oral),

o 14 book chapters of books

o 22 patents.

SUPERVISED RESEARCHERS

o 23 post-docs

o 37 PhD Students

o 77 Master/Engineers students

MANAGING RESPONSABILITIES

o 2022-...Chair Holder of Cellulose Valley Chair (8 companies)

o 2021-...Responsible of International Affairs & International Master Biomaterials/Biorefinery at Grenoble INP Pagora

o 2021-...Chargé de Mission with VP Innovation & enterprise at Grenoble INP UGA

o 2012-19 & 2022-... Head of the group 'Multiscale Biobased Material' of LGP2 (ab.40 pers)

o 2019-21 Senior expert and Department Head "Science & Analytical" at Nestle Institute of Packaging Science

o 2017-19. Deputy Director of LGP2 (ab.90 pers)

o 2015-19 CS Grenoble INP elected member,

o 2015-19: CAC Univ. Grenoble Alpes elected member

o 2011-15: CEVU Grenoble INP elected member

o Responsible for 3 European projects in Grenoble INP Pagora, 1 Marie-Curie Project, 1 COST; Coordinator of 1 FEDER

o 2010-13 Pedagogic coordinator of engineer option in Grenoble INP Pagora

o 2009-10 In charge of the research group 'Converting Biomaterial Packaging' of LGP2 (ab.20 pers)

o 2008-19; 2021-... LGP2 scientific committee elected member

SCIENTIFIC ANIMATION

o Chair Holder of Cellulose Valley Chair (2022-2026)

o WP3 Leader of Glycoalps CDP Excellence Institute (IDEX, 2016-2019), Steering committee member (2021-...)

o WP4 H2020 Unite!, Grenoble INP representative (2021-...)

o COST action vice Chair (ActinPak, 2015-2019)

o Scientific Committee of Carnot institute PolyNat (2013-19) and Steering group member (2017-19)

o WP2 leader of lab of excellence Tec21 (2012-19)

o Marie Curie European project (univ.contact, research coord 2013-2017)

o Polynat projects coordinator & main contact (16)

o French national agency (ANR) project coordinator (1) and main univ. contact (3).

o Co-chair of Tappi Nano 2016 conference (320 att.), chair of subcommittee pack & paper (2015-2019)

o Winter school organizer (2010, 2013, 2016, 2017, 2023)

EXPERT-REVIEWING ACTIVITIES

o Associate editor (2013-2022) of Industrial Crops & Product (IF=3,8), special issue editor

o Science Advisory Board of BiMAC Sweden (2013-16)

o Recruitment of Assistant Professors and Expert for ANR, ADEME, research project or international project

o Expert for Finland Academy – Biomass conversion (2017)

o Jury member for PhD Theses (15), HDR (4), International PhD Opponent (7), International reviewer (4)

o Reviewer for several journals: Cellulose, Journal of Colloid & Interface Science, Industrial Crops and products, Biomacromolecules, ACS Sustainable Chemistry & Engineering, Composite Science Technology, Carbohydrate Polymers, Journal of material chemistry, J. of Composites PartA, Bioresources, J of Appl food chemistry, etc..

APPLIED SCIENCE PARTNERSHIP

o Several industrial collaborations for Phds, Post-doc or master with a total of about 6500k€ budget (company examples: Arjo-wiggins, PDL, Pierre Fabre, Tetrapak, Bluestarsilicon, Cargill, WiPack, Owens Corning, etc..)

o Several company visit organizations for student and tutor of sandwich course engineer (16) in company

o Scientific advisor and part of creation team of 3 start-up: Poly-ink (2011-2019), Inofib (2014-2019), Cilkoo (2022-..)

o Scientific advisor for technology transfer project Linksum: CelloZ, Paintbiocell, E-Trans, Vink-e

COLLABORATIONS

At least 3 months collaborations are listed below :

o Scientific mobility (3 months) W. Orts USDA, Albany-Berkeley, USA en 2010, 1 publication + 4 posters

o National Collaboration: PBS Rouen, CTP Grenoble, CEA Grenoble, UMET Lille, SIMAP Grenoble, INRAE AgroParisTech Paris, CNAM Paris, INRAE BIA Nantes, CERMAV, INRAE Montpellier, CERMAV, Mines Inst. Ales, ICCMO Orsay,

o European project and main collaborations : SCCP(it), VTT (Fi), KTH (Fi), SHU (UK), KaU (Sue), UAV (Por), Itene (Sp), ZUT (Pol), PTS (All), IVV(All), Innventia (Sue), WRC (NL), BoU (It), KCPK (NTH), UniMi (It), SWU (UK), Rise (Sw)

o Specific collaborations : Université de Girona (Esp – 2 master s), Université de SaoPaulo (Br- 2 masters + 1 post-doc), Université de Wash. State (1 invited prof), University Rio (1 master), FPInnovation (Can- 3 master), Risoe-DTU (Dan-1 master), PFI (Nor – 2 masters), Itene (Esp – 1 PhD stay), VTT (Fi – trainee), CSIC (Esp – 1 PhD stay), Aalto (Fi-1 master), Q. Univ. (Aus – 1 PhD stay, Univ Basc Master (Esp-1 post-doc), Virginia Tec (US-3 years PhD), Univ Mac Master (CA-2years, Mitacs funding), SP-KTH (Sw-1PhD stay), Uni Milan (It-join PhD), Aalto (STSM,Trainee – Join PhD), NTNU – Rise, Univ (Nor, join PhD). Swansea (UK, join PhD)

• EGIDE fundings: Imhotep (CNRC Egypt : 2008-2009), Samuel de Champlain (FPInnovation, Canada, 2009-2010), Imhotep (CNRC Egypt : 2012-2013).