Jean-Marie RAQUEZ
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Birthdate: 03/18/1977

RESEARCH SCIENTIST IN POLYMER MATERIALS, SYNTHESIS & PROCESSING

EDUCATION

1999-2003 **PhD degree in Polymer Chemistry**, Summa cum laude, Advisor: Prof. Philippe DUBOIS, Former University of Mons-Hainaut, Belgium.

1995-1999 **Master degree in Chemistry**, Magna cum laude, Advisor: Prof. Philippe DUBOIS, Former University of Mons-Hainaut, Belgium.

CURRENT POSITION

2016-present **Head of the Laboratory of Polymeric and Composites Materials (during the Prof. Ph. DUBOIS leave)**, University of Mons (Belgium)

2012-present **FRS-FNRS research associate**, University of Mons (Belgium) - Development of biobased polymeric nanocomposites with smart properties & Controlled polymerizations

2012-present **Scientific advisor,** Materia Nova – Research Center (Belgium) - Supervision and Management of projects relating to biobased materials

FORMER POSITION

Summer 2013 **Visiting scientist**, Michigan State University (U.S.A.), Advisor: Prof. R. Narayan

2008-2012 **FRS-FNRS postdoctoral researcher**, University of Mons (Belgium), Advisor: Prof. Ph. Dubois - Development of biobased polymeric nanocomposites.

2007-2008 **Associated Professor**, Ecole Des Mines de Douai (France) - Reactive compounding of biobased polymeric nanocomposites at large-scale applications

2005-2007 **Assistant researcher**, Materia Nova (Belgium) - Developing sustainable products based on pea starch for daily applications.

2004 **Postdoctoral fellowship**, Michigan State University (U.S.A.), Advisor: Prof. R. Narayan - Development of biodegradable (nano)composites based on corn starch in blown films Applications via Reactive Extrusion Processing.

1999-2003 **PhD degree in polymer chemistry**, University of Mons (Belgium), Advisor: Prof. Ph. Dubois – Synthesis of biodegradable poly(paradioxanone)-based polymers via Controlled polymerization

FELLOWSHIP AND AWARDS

2013 Junior member of "Academie des Sciences de Belgique" (2013).

2013 FNRS associate fellowship.

2008 FNRS postdoctoral fellowship.

2002 WBI travel grant – 6 month doctoral stay at Michigan State University (USA).

GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (ADVISOR/COADVISOR)

2005 – present 7 PostDocs/12 PhDs/10 Master Students

TEACHING ACTIVITIES

2017-2018 Guest Lecturer "Polymer Chemistry & Introduction" at National School of Chemical Engineering at Lille (France)

July 2014-2017 Guest lecturer "Biobased polymeric materials" at University of Freiburg (Germany).

2016-now Lecturer “Polymer Chemistry” at Faculty of Engineering - UMons (Belgium).
2007-now Lecturer “Macromolecular chemistry” at Faculty of Science - UMons (Belgium).
2012-now Lecturer “Reactive melt-processing of polymeric materials” at Faculty of Science - UMons (Belgium).

MEMBERSHIP OF SCIENTIFIC SOCIETY

1999-present Société Royale de Chimie de Belgique
1999-present Belgian Polymer Group, Member
2007-present Groupe Français des Polymères
2013-present Alumni at Académie des Sciences de Belgique

INSTITUTIONAL DUTIES

2014-2016 Co-Member of Research Council at University of Mons (Belgium).
2012-present Member of Department of Sciences at University of Mons (Belgium).

COMMISSIONS OF TRUST

2017 Member of Belgian Polymer Group Board
2016 Member of PhD thesis evaluation at FNRS (French speaking community)
2016 Member of PhD thesis evaluation at FWO (Flemish speaking community)
2012 Guest Editor “Biobased polymers and related materials” in European Polymer Journal (Elsevier).
2009-present Various journal and grant peer-reviewing activities (e.g. Macromolecules, Carbohydrates).

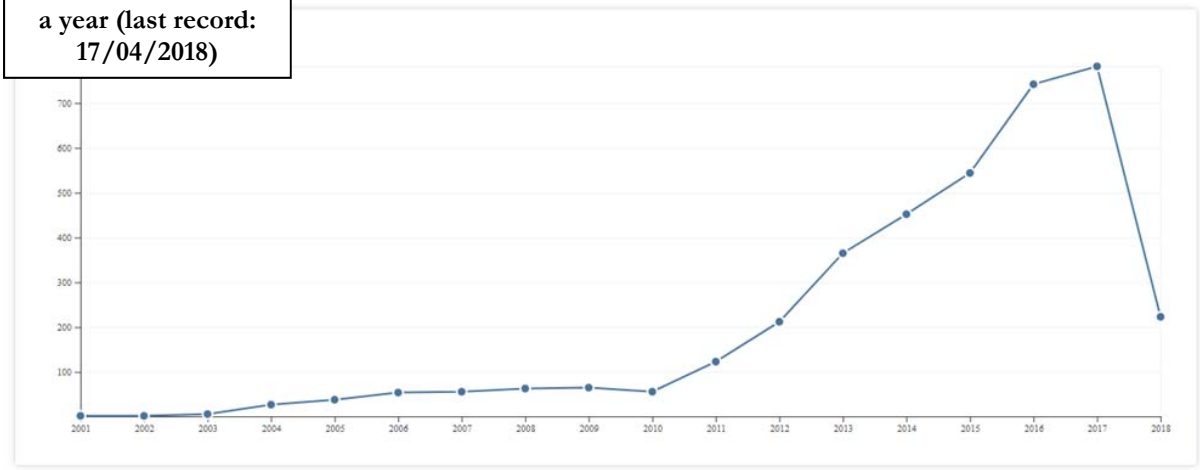
MAJOR COLLABORATIONS

2014 Prof. K.K. Yang – Center for Degradable and Flame-Retardant Polymeric Materials (SC Key-Laboratory) at Sichuan University (China) – Scientific collaborations in the realm of shape-memory polymers.
2013 Prof. Ruddy Wattiez – Department of Biology at University of Mons (Belgium) – Scientific collaborations in the design of novel renewable monomers through bacteria approaches.
2013 Prof. Philippe Zinck – Department of Chemistry at University of Lille 1 (France) – Scientific collaborations in the synthesis of renewable polymers using metal-free catalysts.
2013 Prof. Santiago Espallargas – Department of Mechanical Engineering at Delft University (The Netherlands) – Scientific collaborations in shelf-healing polymers
2011 Dr Christophe Caucheteur – Department of Engineering at University of Mons (Belgium) – Scientific collaborations in the design of optical fibers made of active polymeric systems.
2012 Prof. Richard Gross – Department of Chemistry at Rensselaer Polytechnic Institute (USA) – Scientific collaborations in enzymatic polymerization of cyclic esters.
2011 Prof. Cedric Plesse – Department of Chemistry at Cergy University (France) – Scientific collaborations in polymeric actuators.
2005 Prof. Alejandro Muller – Department of Chemistry at Basque Country University (Spain) – Scientific collaborations in the crystallization behavior of polymeric systems.
1999 Prof. Ramani Narayan – Department of Chemical Engineering at Michigan State University (USA) – Scientific collaborations in reactive extrusion processing of biodegradable polymers.

OVERALL RESEARCH CONTRIBUTIONS (H-factor = 32, ISI)

Peer-reviewed papers: 110 ; **Book:** 1 ; **Chapters of book:** 4 ; **Oral communications/Invited lectures:** 38 ; **Patents:** 8

Numbers of citation a year (last record: 17/04/2018)



Research projects under my personal supervision: 25
17 (international : EU-H2020, EU-FP-7th, EU-INTERREG FWVL, NSF), 3 (national: BELSPO FNRS, FWB, RW), 5 (industrial)

ACADEMIC ACTIVITIES

April 2015 Visiting professor "Biobased polymeric materials" at Sichuan University (China)
Summer 2013 Visiting scientists at Michigan State University (Prof. R. Narayan)
July 2012 Visiting professor at Polytechnic University of Barcelona (Spain)

ENVIRONMENTALLY FRIENDLY AND BIOSOURCED POLYMERIC MATERIALS: THE KEY-ROLE OF SUSTAINABLE CHEMISTRY IN NANOTECHNOLOGY AND MATERIALS SCIENCE

In the field of "bioplastics", i.e., bio-based and/or biodegradable polymer materials, it includes research activities ranging from controlled and catalyzed polymerization reactions, production of high performances nanocomposites/nanohybrids via reactive processing, e.g. reactive extrusion, with applications in packaging, textile, automotive, electronic, aeronautic and biomedical domains. A special emphasis is made of biobased plastics with key-properties including shape-memory polymers and self-healing materials.