

Marco Bernardi

PERSONAL INFORMATION



📍 (current) via L.L. Zamenhof 2, 20136 Milano, Italy
(permanent) via G. Tagliacozzi 42, 40141 Bologna, Italy

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✉️ bernardi.marco81@gmail.com

Sex Male | **Date of birth** 04/04/1981 | **Nationality** Italian

WORK EXPERIENCE

From March 2018 – ongoing

R&D Manager

Vegea s.r.l (Milan, Italy)

Main activity: coordination of R&D activities for the valorization of agricultural residues into biochemical and polymers for textile applications

- Drafting of project proposal for public funding programs (EU, national, regional)
- Definition of R&D activities schedule
- Organization of laboratory and pilot plant facilities

From December 2012 – March 2018

R&D Project Manager

Biochemtex (Tortona (AL), Italy)

Main activity: development and scale-up of processes for biochemicals and biofuels production from cellulosic biomass

- Management of internal R&D projects by coordinating chemists, engineers and technicians at lab and pilot plant scale
- Collaboration with engineering department for the definition of processes scale-up
- Support to business development and IP department
- Management of public (universities and public institutions) and private partnerships
- Participation and management of company activities in public funded projects (FP7, BBI, Horizon2020)
- Written and oral reporting of results to the top management

From May 2011 – to November 2012

R&D Scientist

Biochemtex (Tortona (AL), Italy)

Main activity: study of the catalytic hydrogenation of purified cellulosic sugars to sugar alcohols

- Execution of laboratory and pilot plant experimental activities
- Interpretation and organization of results
- Relationship with catalyst suppliers

From September 2009 – to May 2011

Post-doctoral fellow

Dipartimento di Scienze dei Materiali e Ingegneria Chimica, Politecnico di Torino (Torino, Italy)

Main activity: development of transition metal-based catalysts for wastewater and sewage sludge treatment (partnership with Smat)

- Execution of laboratory experimental activities
- Supervision of PhD and Master student's activities
- Management of an R&D laboratory

From October 2008 – to September 2009

Post-Doctoral fellow

Laboratoire de Catalyse en Chimie Organique, Université de Poitiers-CNRS (Poitiers, France)

Main activity: production of fine chemicals via gas-phase catalytic sulfuration (partnership with Adisseo)

- Execution of mini-pilot plant activities
- Data analysis and organization
- Reporting to industrial partners and funders

**From October 2008 – to
September 2009**

PhD Student

Institut de Recherche sur la Catalyse et l'Environnement de Lyon – Université Claude Bernard Lyon I (Lyon, France)

Main activity: development of a novel advanced oxidation process for the treatment of industrial and municipal sewage sludge (partnership with Veolia)

- Execution of laboratory sludge oxidation testing, catalyst preparation
- Analytical follow-up of reaction samples and characterization of catalysts
- Reporting to industrial partners
- Teaching and managing undergraduate students

EDUCATION AND TRAINING

From January 2019 – ongoing

Executive MBA in Technology and Innovation Management

Bologna Business School – Università di Bologna (Bologna, Italy)

**From September 2005 – to
October 2008**

PhD in Catalysis and Physical Chemistry

Institut de Recherche sur la Catalyse et l'Environnement de Lyon – Université Claude Bernard Lyon I (Lyon, France)

**From September 2000 – to July
2005**

Laurea in Industrial Chemistry

Facoltà di Chimica Industriale, Università di Bologna (Bologna, Italy)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
	Replace with name of language certificate. Enter level if known.				
French	C2	C2	C2	C2	C1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

**Organisational / managerial
skills**

- ability to work and manage multidisciplinary teams (Chemists, Engineers, Technicians)
- experience in working in a multinational environment: several periods spent in company offices and R&D center in USA
- leadership, problem solving
- public speaking: participation to conferences and project meetings
- knowledge of project funding mechanism and management of funded projects

- Job-related skills**
- Management of R&D projects, coordinating and following project team activities
 - Understanding of biomass and biomass-derived products characterization and valorization technologies
 - Knowledge of wastewater treatment technologies and of advanced oxidation processes for the treatment of recalcitrant water pollutants
 - Techno-economic analysis of R&D development and production processes related to biofuels and chemicals field
 - Excellent knowledge of catalysis chemistry (catalyst synthesis, testing, characterization, scale-up)
 - Excellent knowledge of chemical process development and scale-up
 - Good knowledge of industrial chemistry purification technologies (distillation, chromatography, ion-exchange, membranes)
 - Excellent experimental skills in chemical reactions (hydrogenation, oxidation, fluorination, sulfuration) and product analysis (HPLC, GC, GC-MS)
- Computer skills**
- Excellent command of MS Office package

ADDITIONAL INFORMATION

Selected publications

- Chemicals from renewable sources
M. Bernardi, R.R. Tangorra, P. Palmisano, A. Bogliano
Reference Module in Chemistry, Molecular Sciences and Chemical Engineering (2016)
- Recovery of monosaccharides from lignocellulosic hydrolysates by ion exclusion chromatography
G. Lodi, L.A. Pellegrini, A. Aliverti, B. Rivas Torres, M. Bernardi, M. Morbidelli, G. Storti
Journal of Chromatography A 1496 (2017) 25-36
- Exploring the reaction conditions for Ru/C catalyzed selective hydrogenolysis of xylitol alkaline aqueous solutions to glycols in a trickle-bed reactor
F. Auneau, M. Berchu, G. Aubert, C. Pinel, M. Besson, D. Todaro, M. Bernardi, T. Ponsetti, R. Di Felice
Catalysis Today 234 (2014) 100-106
- Performances of soluble metallic salts in the catalytic wet air oxidation of sewage sludge
M. Bernardi, D. Cretenot, S. Deleris, C. Descorme, J. Chauzy, M. Besson
Catalysis Today 157(1-4) (2010) 420-424

Patents

- Bio-derived ethylene glycol compositions for polyester bottles
Biochemtex - B. Rivas Torres, D. Giordano, G. Ghisolfi, M. Bernardi, D. Todaro, I. Bozzano, T. Crippa
WO/2015/028156
- Process for producing a stream comprising ethylene glycol
Biochemtex – M. Bernardi, D. Todaro, C. Dorati
WO/2015/055315
- Integrated process for producing cellulosic pulp and polyols stream
Biochemtex – M. Bernardi, P. Ferrando, S. Raghavendran, A. Bonanni, A. Frattini, D. Giordano
WO/2015/124498
- Continuous process for producing an ethylene glycol stream
Biochemtex – M. Bernardi, D. Todaro, I. Bozzano
WO/2015/128202

Personal interests

- Traveling
- Reading (Crime-Noir Novels, Comic Books/Graphic Novels)
- Sports (Basketball)