CURRICULUM VITAE
LUCA DEL BENE – CHEMICAL ENGINEER – PHD CANDIDATE

Full Name	Luca Del Bene
Date of birth	16 June 1988

Education and Training

11.2014 - present   **PhD studies at University of Bologna and University of Ferrara, Chemical Engineering CFD**

- Computational Fluid Dynamic (CFD) studies of dense solid-gas system (fluidized bed and powder handling)
- CFD, DEM, MP-PIC computational methods
- CD-ADAPCO Star CCM+, Ansys Fluent, Barracuda Virtual Reactor

09.2011 – 03.2014   **Master Degree, Swiss Federal Institute of Technology Zürich, Process Engineering 4.91/6**

Thesis: "Optimization of a carbonium ion scavenger pretreatment of spruce wood"

09.2007 – 03.2011   **Bachelor Degree, University of Bologna, Chemical Engineering 107/110**

Thesis. "Modeling of permeability of gases in ionomer membranes"

Work Experience

11.2014 - present   **R&D Assistant, University of Ferrara and IMA SpA (Active Division, Ozzano dell'Emilia)**

- CFD design of novel machines and reverse engineering
- Project Smart Manufacturing
- Granulation, Coating and Downdraft Gasification investigations

07.2014 – 09.2014   **SAP Consultant, Intern, Westhouse Italia SRL, Pesaro**

- Training as a SAP consultant both as a user and a customizing point of view
- SAP ECC 6.0 and SAP Business by Design training on the job

03.2014 – 08.2015   **Design Engineer, Collaborator C.O.SPE SRL, Fano**

- Ideation, design and realization of lab experiments
- Study of gypsum dissolution in water at different salt content
- Study of application of electrosmosis to avoid gypsum dissolution in seawater

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Work Experience

07.2012 – 12.2012   **Modeling Engineer, Intern, Roche Pharmaceutical, Basel**

- Modeling the heat exchange behavior of batch reactors.
- Autonomously developed a new model concept
- Modeling the reactors automatic control.

08.2011 – 09.2011   **Modeling Engineer, University of Bologna**

- Developing a model for describing the permeability of gases in ionomeric membrane for fuel cells.
- MATLAB pseudo random membrane structure creation. CFD simulation performed and adaptation of the model to previously done experiments.

Previously Lab analysis of diesel and fuel oil at **FOX Petroli, Pesaro**

Electrical switchboard assembler at **MAB Elettromeccanica, Pesaro**

Publications

L. Del Bene, M. Minelli, M.G. De Angelis, M.G. Baschetti, Modeling the permeability of gases in humidified ionomeric membranes, in: Procedia Eng., Elsevier, 2012: pp. 756–757.

T. Pielhop, C. Reinhard, C. Hecht, **L. Del Bene**, M.H. Studer, P. Rudolf von Rohr, Application potential of a carbocation scavenger in autohydrolysis and dilute acid pretreatment to overcome high softwood recalcitrance, Biomass and Bioenergy. 105 (2017) 164–173.

Software and OS

GOOD: Windows. MATLAB. Ansys Fluent, Star CCM+, Barracuda VR, SolidWorks, Word, Excel, Power Point, LaTeX.

BASIC: Linux, SAP ECC, SAP by Design. Python and C, Aspen Plus, Ansys Mechanical, OpenFoam

Languages

Mother Tongue	Italian
Professional use	English
Basic use	German
Willingness to learn	

Extracurricular Activities

Basketball. Twice a week

Boy Scout. Volunteering

Reading Thriller and Video gaming (Strategy and Managerial)

Ferrara, 1/11/2017   Luca Del Bene