

## Curriculum Vitae of Massimiliano Bestetti

### A. Personal information

Place and date of birth  
Office address                      Politecnico di Milano  
    Dipartimento di Chimica Materiali e Ingegneria Chimica “G.Natta”  
    Via Mancinelli 7, 20131 Milano, Italy  
  
Website  
Phone  
Mobile  
E-mail  
Position                              Associate Professor

### B. Education

Master degree in Nuclear Engineering	Rare-earths liquid-liquid extraction and the production of high purity yttrium	Politecnico of Milano (Italy). Advisors: U. Ducati.	1994
PhD in Metallurgical Engineering	Hydrometallurgical treatment of powders form fumes of the secondary metallurgy	Politecnico of Torino (Italy). Advisors: P.L. Cavallotti, D. Firrao.	1998

Other: on leave at University of British Columbia (D. Dresinger, G. Kelsall) working on the electrometallurgy of zinc (1999-2000).

### C. Memberships and board

Professional Italian Engineers Council (Ordine degli Ingegneri della Provincia di Milano)	1994-
Board of EFUN and PoliEFUN (Surface Treatment Association) at Politecnico di Milano	2003-
Technical committee on Coatings of the Italian Association of Metallurgy (AIM). Coordinator: 2010 - 2014.	2007-
Nanotechnology Committee of the Ordine degli Ingegneri della Provincia di Milano	2008-
Technical committee U930434 Magnesium and its alloys of UNI (UNI - Ente Nazionale Italiano di Unificazione)	2008-
Technical committee U22 Nanotechnology of UNI (UNI - Ente Nazionale Italiano di Unificazione)	2012-

### D. Main research and professional expertise areas

Physical chemistry of materials. Applied electrochemistry.  
Materials engineering, metals, nanomaterials synthesis and applications.  
Surface science and engineering. Thin films and coatings. Corrosion and wear.  
Hydrometallurgy. Recycling of metals.

## E. Main teaching activities

Course	CFU	Level	School	Years
Surface preparation (ita)	10	U	E	2001-2009
Thermodynamics of materials (ita)	5	U	E	2004-2009
Surface finishing in Criteria for materials selection (ita)	3	G	D	2004-2012
Statistical thermodynamics (ita)	5	G	E	2004-2005
Physical chemistry of materials (ita)	5	U	E	2005-2009
Surface science (eng)	10	G	E	2010-2014
Nanotechnology and surface engineering (ita)	5	U	E	2011-2014
Materials properties in Criteria for materials selection (eng)	6 / 4	G	D	2012-2014
Physical chemistry properties of materials (eng)	5	G	E	2012-2014
Physical chemistry of materials (ita)	10	U	E	2014-2015

U: undergraduate, G: graduate; E: engineering, D: design.

In the period between 1997 and 1999: tutor of the course “Physical chemistry of solid materials” (ita) (Prof. U. Ducati). Advisor of more than 100 undergraduate, master and PhD thesis students. Other teaching activities: 22-26 Apr 2013 on “Electrochemical synthesis of nanomaterials” McKenzie University (San Paolo, Brasil) 2013; 18-22 Aug 2014 on “Nanomaterials for next generation applications” at CETENE (Recife, Brasile). Contract with Polytechnic of Tomsk (Tomsk, Russia) for a course of 46 hours on “Hydrogen and electrochemistry: generation and uses” (fall 2014 – spring 2015). Director of the Master Course on “Engineering of Photovoltaic systems” (A.Y. 2012-2013) at Politecnico di Milano.

## F. Textbooks and teaching material for university

Translation of the textbook “Thermodynamics of materials” (D.V. Ragone, Vol. I and II).

## G. Publications

Papers and proceedings	More than 100
Books	G. Salvago, M. Bestetti “Progettualità e corrosione” Associazione Italiana di Metallurgia (2012)
Chapters of books	G. Salvago, M. Bestetti “Role of Design in Corrosion and Corrosion Prevention”, in: Corrosion and materials in the oil and gas industries, Edited by R. Javaherdashti, C. Nwaoha, H. Tan, CRC Press (2014) p. 299-374.
	M. Bestetti, I. Lombardi “L’elettrodeposizione di rivestimenti da solventi non acquosi” p. 3.2-309/328; M. Bestetti “La preparazione delle superfici per la deposizione galvanica” p. 3.3-329/345; M. Bestetti “Il controllo di prodotto” p. 3.4-403/416 in: Manuale di Trattamenti e Finiture, Tecniche Nuove (2003)
	M. Bestetti, A Da Forno “Electroless and Electrochemical Deposition of Metallic Coatings on Magnesium Alloys. Critical Literature Review”, in: Magnesium Alloys - Corrosion and Surface Treatments, Ed. Franck Czerwinski (2011) p. 153-184.
	G. Salvago, M. Bestetti “Metal Matrix Composites: Corrosion”, in: Wiley Encyclopedia of Composites, Eds. L. Nicolais, A. Borzacchiello, S.M. Lee. Wiley (2012) p. 1707-1719.
Translations	“Termodinamica dei materiali” Vol.1 (2003) and Vol.2 (2011), Casa Editrice Ambrosiana of the textbook D.V. Ragone, “Thermodynamics of Materials”, Vol. 1 and 2, Wiley (1995).

## H. International collaborations (ongoing)

Metal surface modification by means of high current low energy electron beams (Dr. Alexey Markov, Siberian Branch of the Russian Academy of Science, Institute of High Current Electronics, Tomsk - Russia).

## **I. Technology transfer**

Inventor/coinventor in 9 patents/patent pending applications: EP2314251 (A1); ITLO20090001 (A1); EP2213369 (A1); ITMI20061230 (A1); WO2006013115 (A1); ITMI20050206 (A1); ITMI20041634 (A1); WO2004001101 (A2); WO02075024 (A1).

Milano, 08 10 2024

Massimiliano Bestetti