Name: LUDOVICA Surname: ROVATTI

Technical skills: Microstructural characterization through SEM (Scanning Electron Microscopy), TEM (Transmission Electron Microscopy), XRD (X-ray diffraction), instrumented indentation, DSC (Differential Scanning Calorimetry).

- **1/03/2019-actual position**: Technician
- **16/03/2016-1/03/2019**: One-year **Research contract at Milan Polytechnic** for the project "Valutazione delle prestazioni di strumenti da laboratorio." ("Optimization and evaluation of laboratory equipment").

- **16/06/2015-15/03/2016**: One-year **Research contract at Milan Polytechnic** for the research project "Ottimizzazione dei rivestimenti per valvole in servizio ad elevate temperature" ("Optimization of coatings for valves operating at high temperature").

- **1/12/2014-1/03/2015**: Collaboration contract on "Analisi del grado di liberazione di particelle metalliche dalla frantumazione di schede elettroniche" ("analysis of metals contained in PCB by electrostatic separation method") at the **Mechanical Department of Milan Polytechnic**.

- **16/11/2012-2014**: Two years **Research contract at Milan Polytechnic** working in two projects: European project DEBACOAT (Development of high-performance barrels with innovative gradient coatings) related to the microstructural characterization of hardfacing Fe-based alloys for high tribological applications and "Indagini sulla deformazione di leghe di Alluminio e leghe di Titanio sottoposte a trattamenti laser di ricottura nell'ambito del Progetto di Ricerca Regione Lombardia /MIUR Origami ID 30107333"for the analysis of titanium and aluminium alloys after laser treatments.

- **2011-2012**: Scholarship by La Sapienza of Rome developed **at University of Oulu, Finland,** for "FREQUENZA DI CORSI O ATTIVITÀ DI PERFEZIONAMENTO ALL'ESTERO".

- **15/10/2010-2011**: One-year **Research contract at University of Oulu, Finland,** in two FIMECC projects (LIGHT and Demanding applications) related to the microstructural characterization of metastable stainless steels and ferritic stainless steels liable to Laves phase precipitation using Transmission Electron Microscopy.

- **24/02/2010*:* Phd in Material Engineering at "Tor Vergata" University of Rome.**

***Phd thesis title*: "Microstructural evolution after Cellular Precipitation in a high nitrogen austenitic steel"**

- **26/10/2006**: **Degree in Chemical Engineering, 108/110 at "La Sapienza" University of Rome.**
Master thesis title: "Realization of a gas sensor for the NH3 detection and modeling of the phenomenon through the Resistive variations of the carbon nanotubes of the sensor" at Tor Vergata University of Rome– Chemical Department and Material Technologies.
- **2002-2006**: Collaboration scholarships in the Prime Materials and Chemical Enigineering of "La Sapienza" of Rome.

Publications:

Esmaeili, A., Sbarufatti, C., Jiménez-Suárez, A., ...Rovatti, L., Ureña, A. Synergistic effects of double-walled carbon nanotubes and nanoclays on mechanical, electrical and piezoresistive properties of epoxy based nanocomposites **Composites Science and Technology**, 2020, 200, 108459

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L. Rovatti, E. Gariboldi, N. Lecis, L. Mondora, G.A. Mondora, *Influence of long heat treatments on hardness and tribological behaviour of HVOF sprayed WC-CoCr and Cr3C2-25NiCr coatings*, **Materials Science Forum,** ISSN: 1662-9760, Vol. 879, pp 1612-1617 (2017) Trans Tech Publications, Switzerland.

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L. Rovatti, R. Casati, A. Emami, N. Lecis, O. Stejskal, C. Andrianopoli and M. Vedani "*Effect of vanadium on microstructure and wear behaviour of Fe based C–B–Ni hardfacing alloy"*, **International Journal of Cast Metals Research**, 28 (2015) 4, 201-207.

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P. Sahu, S.K. Shee, A.S. Hamada, L. Rovatti, T. Sahu, B. Mahato S. Ghosh Chowdhury, D.A. Porter, L.P. Karjalainen, "*Low strain rate deformation behavior of a Cr–Mn austenitic steel at -80°C*", **Acta Materialia** 60 (2012) 6907–6919.

A. Hamada, D. Porter, J. Puustinen, L. Rovatti, P.Karjalainen *"Study of cyclic strain localization and fatigue fracture mechanism of high-manganese twinning-induced plasticity steels",* **XVI International Conference Colloquium Mechanical Fatigue of Metals 2012**, Brno Czech Republic (2012).

Quadrini F., A. Boschetto, L. Rovatti, L. Santo "*Replication casting of open-cell AlSi7Mg0.3 foams*", **Materials Letters** 65 (2011) 2558–2561.

A. Carosi, P. Deodati, M. Amati, S. Kaciulis, A. Mezzi, R. Montanari, L. Rovatti, N. Ucciardello ***"****Cellular precipitation in a high-nitrogen austenitic steel: elemental distribution and related effects"*, **La Metallurgia Italiana** 5 (2011) 1-7.

A. Kisko, L. Rovatti, I. Miettunen, P. Karjalainen, J. Talonen "*Microstructure and anisotropy of mechanical properties in reversion-treated high-Mn type 204Cu and 201 stainless steels*", **Materials Science Forum,** Vol. 762 (2013) pp 424-430, Como Italy (2011).

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A. Carosi, L. Gregoratti, S. Kaciulis, A. Mezzi, R. Montanari, L. Rovatti, N. Ucciardello "*Heating modification of an austenitic steel with high nitrogen content*", **Surface Interface Analysis**, 42, (2010), 726-729.

L. Rovatti , R. Montanari, N. Ucciardello, A. Mezzi, S. Kaciulis and A. Carosi "*Discontinuous precipitation in a high-nitrogen austenitic steel*", **Materials Science Forum** 638-642 (2010) 3597-3602.

Premio Daccò AIM 2016

INTERNATIONAL CONGRESS

IFHTSE 2015: European Conference on Heat Treatment 2015 and the 22nd IFHTSE Congress, 20-22 May 2015, Venice, Italy.

ICPNS 2013: 7th International Conference on Physical and Numerical Simulation of Materials Processing (ICPNS 13), June 16-19, 2013, Oulu, Finland.

SCANDEM 2011, 62nd Meeting of the Scandinavian Microscopy Society, Oulu, Finland.

THERMEC 2009 (International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS Processing, Fabrication, Properties, Applications)**,** winner of an award for the organization in Thermec Congress, August 25-29, 2009, Berlin, Germany.