

Personal information

Name: [Isabella Nova](#)

Marital status: married since 1998, with two children born in 2001 and 2007

Maternal leave periods: Dec, 2000 - Apr, 2001 and Sept, 2007 – Jan, 2008

[Publons ID](#) - Citation Index = 7080; Hirsch index HI =47

[Scopus ID](#) - Citation Index = 8479; Hirsch index HI =52

Education

1999-2002: Post Doc Position, Chemical Engineering, Politecnico di Milano

1996-1999: P.h.D., Industrial Chemistry, Università degli Studi di Milano

1990-1996: MS degree, Chemical Engineering, Politecnico di Milano

1985-1989: Scuola Secondaria Superiore Liceo Scientifico Istituto Gonzaga

Current & Previous Positions

2018-PRESENT: Full Professor, Laboratory of Catalysis and Catalytic Processes (LCCP), Dept.Energy, Politecnico di Milano

2007-2018: Associate Professor, LCCP, Dept.Energy, Politecnico di Milano

2002-2007: Assistant Professor, LCCP, Department of Chemistry, Materials and Chemical Engineering, Politecnico di Milano

Responsible for the photocatalytic research lines (4 people), and co-responsible for Selective Catalytic Reduction deNOx activities (20 people) at LCCP, Dept.Energy, Politecnico di Milano

Teaching activities

2021-PRESENT: "*Chimica Industriale*" (students 100-120), BS in the Chemical Engineering, Politecnico di Milano

2007-2022: "*Catalytic Processes for Energy and Environment*" (students 40-60), MS in the Chemical Engineering, Politecnico di Milano

2003-2022: "*Processes for energy and environment*" (students 50-100) MS in the Chemical Engineering, Politecnico di Milano

Supervision of graduate students and postdoctoral fellows

I have supervised more than 100 BS students, more than 100 MS students, 12 PhD's students, 5 Post Doc researchers. Former PhD students have been and/or are Faculties in prestigious Universities, or employed in leadership positions in R&D Centers of Italian Institute of Technology (IIT), Umicore, Johnson Matthey, Daimler, Chemtex, Brembo, EU's Joint Research Centre (JRC).

Major institutional responsibilities

2019-PRESENT: [Deputy Dean](#) of the *School of Industrial and Information Engineering* at Politecnico di Milano

2018-PRESENT: [President](#) of the Degree Program Board of *Chemical Engineering* (BS and MS) and of *Engineering for Prevention and Safety for Process Industry* (MS) at Politecnico di Milano

2014-2017: *Secretary* of the Degree Program Board of *Chemical Engineering* (BS and MS) and of *Engineering for Prevention and Safety for Process Industry* (MS) at Politecnico di Milano

2013-2017: *President* of the Graduation Committee of *Chemical Engineering* (BS and MS) and of *Engineering for Prevention and Safety for Process Industry* (MS) at Politecnico di Milano

2011-2015: *Elected member* of the Directive Board of the Industrial Chemistry Division, Italian Chem. Soc.

Organization of scientific meetings

2021: Member of the Organizing Committee of the [XXIV International Conference on Chemical Reactors, CHEMREACTOR-24](#), Milan, Italy, September 12-17, 2021

2021: Member of the Academic Committee of the [4th International Symposium on Catalytic Science and Technology in Sustainable Energy and Environment](#) (EECAT2020), Helsinki, Finland - postponed

2018: Member of the Scientific Committee of the [10th International Conference on Environmental Catalysis & 3rd International Symposium on Catalytic Science and Technology in Sustainable Energy and Environment](#) (ICEC&EECAT2018), Tianjin (China), September 23-27, 2018

2014: Member of the Scientific Committee of the *10th European Symposium on Electrochemical Engineering*, Chia, Domus de Maria (CA), Sardinia, Italy, September 28 - October 02, 2014

2013: Member of the Scientific Committee of the *XVII National Congress on Catalysis* and of the *XI National Congress on Science and Technology of Zeolites*, Riccione, Italy, September 15-18, 2013

2012, 2009: Member of the International Program Committee, *ECOSM'09* and *ECOSM'12* (Engine Control, Simulation and Modeling), France, Nov 30 – Dec 2, 2009, and October 23-25, 2012

Reviewing activities & commission of trusts

2021-PRESENT: Editorial Board of [Emission Control Science and Technology](#) (Springer)

2021, 2019, 2016, 2014, 2012, 2010, 2008: Guest Editor of special issues of [Catalysis Today](#) (Vol.136, 151, 184, 231, 267, 320, 360), Elsevier

2019-PRESENT: member of the Scientific Committee of International STEM awards (<https://www.stemawards.eu>)

2019-PRESENT: Editorial Board of [Frontiers in Mechanical Engineering](#) and of [Frontiers in Future Transportation](#) (Frontiers)

2016-PRESENT: Editorial Board of [Applied Catalysis B: Environmental](#) (Elsevier)

2014: Co-editor of [Urea-SCR Technology for deNOx After Treatment of Diesel Exhaust](#), Springer Science+Business Media New York, 2014 (Springer). A reference in the field, with over 87k downloads of the different chapters.

Regularly acting as expert reviewer for the Provincia Autonoma di Trento (Italy), The Skolkovo Foundation (Russia), the Swedish Research Council (Sweden), the Technology Foundation STW (The Netherlands), for many leading international journals in the field of catalysis and chemical engineering (e.g. J.Catal., App.Catal A & B, ACS Catal., Chem.Eng.J., AIChE J., Ind.Eng.Chem.Res.), and for the related main conferences (ICC, NAM, EUROPCAT, ICEC, CAPOC, ISCRE, ...).

Publons [Top reviewer in 2017](#).

Principal Opponent on several occasions for the evaluation of PhD theses (Chalmers University and KTH, Sweden, Politecnico di Torino and Università Federico II di Napoli, Italy, Universidad Pais Basco, Spain, University of Alberta, Canada).

Major international academic collaborations

Prof. D.Chen - Norwegian University of Science and Technology, NO

Prof. X.Gao - Zhejiang University, CN

Prof. J.D.Grunwaldt - Karlsruhe Institut für Technologie, GE

Prof. W.S.Epling - University of Virginia, USA

Dr. W.Partridge, dr. T.Toops, dr. J.Phil – ORNLaboratory, USA

Dr. Z.Sobalik - Academy of Sciences, CZ

Prof. G.Koltsakis - Aristotle University of Thessaloniki, GR

Dr. C.H.F.Peden & dr. J.Sznayi - Pacific Northwest National Laboratory, USA, **dr. A.Yezerets** - Cummins Inc., USA, **Prof. W.Epling** - University of Virginia, USA

Research fundings

Since 2002 I have been leading and co-leading industrial projects with Daimler AG, Corning, Haldor Topsoe, MTU, Johnson Matthey, FiatPowerTrain, Cummins, and participating to several EU-FP7 and EU-H2020 projects (overall funding over to 3.5M Euros)

I am currently PI and/or co-PI of many research projects funded by Daimler AG (DE), Johnson Matthey (UK), Cummins (USA) (over 400,000 Euros funding).

Selected invited lectures

- **2022:** invited Lecture for the division of Energy and Fuels during the ACS Spring' 2022 National Meeting
- **2021:** invited lecture for the "Frontiers in Catalysis: PNNL's Institute for Integrated Catalysis celebrates 15 years" symposium, ACS Fall 2021 National Meeting
- **2021:** invited Key-note Lecture at the Fourth International Conference on Applied Surface Science
- **2020:** invited Key-note Lecture at the 17th International Congress on Catalysis, ICC 2020 - postponed to 2021
- **2020, 2016, 2014:** invited Key-note Lectures at the 1st, 2nd, 4th International Symposium on Catalytic Science and Technology in Sustainable Energy and Environment, EECAT
- **2019:** invited lecture for the Division of Catalysis Science and Technology, ACS Spring 2019 National Meeting
- **2018:** invited Key-note Lecture at the 10th International Conference on Environmental Catalysis & 3rd International Symposium on Catalytic Science and Technology in Sustainable Energy and Environment (ICEC&EECAT2018)
- **2017:** invited Key-note Lecture at the 18th National Congress on Catalysis of China, Tianjin, China, October 16-20, 2017
- **2015, 2009:** invited Key-note Lecture at the 24th and at the 21st North American Meeting (NAM) of the North American Catalysis Society
- **2013:** invited Key-note Lecture at XI European Congress on Catalysis–Europacat.
- **2012:** invited Plenary Lecture at 2012 DOE CLEERS workshop
- **2011:** invited Plenary Lecture at MODEGAT II, International Symposium on Modelling of Exhaust- Gas After-Treatment
- **2009:** invited Key-note Lecture at the 21st North American Meeting (NAM) of the North American Catalysis Society
- **2005:** invited Key-note Lecture at the American Chemical Society's Fuel Chemistry and Petroleum Chemistry Divisions entitled "CATALYSIS IN FUEL CHEMISTRY" during the 229th ACS National Meeting

Awards & Recognitions

- 2020:** IAAM Scientist Award Sweden (SIAAM, <https://www.iaamonline.org/iaam-scientist-medal>)
- 2018:** inclusion in the Inspiring Fifty Italy 2018 (<https://italy.inspiringfifty.org/>)
- 2016-PRESENT:** inclusion in the 100 experts in STEM (<https://100esperte.it/>)
- 2013-PRESENT:** inclusion in the "Top Italian Scientists" (Via-academy <http://www.topitalianscientists.org/>)
- 2010:** "Best Poster Award" - 6th International Conference on Environmental Catalysis, Beijing, China
- 2009:** "Energy award" - Schneider Electric and "K-idea award" - Kilometro Rosso for the patent EP2144691B1
- 2005:** "Glenn Award for the San Diego Meeting of the Fuel Chemistry Division" - ACS Meeting, USA
- 2004:** "Prize for young scientists" - 13^o International Congress on Catalysis, Paris, France

My contribution to catalysis is exemplary and I am currently an internationally recognized leader, specifically in the automotive catalysis area, covering catalyst modelling and mechanistic studies, reaction engineering, experimental work, controls development and application. This is testified by co-authorship of over 170 papers, 300 communications to conferences, 4 international patents, co-editing of 8 volumes of Catal.Today special issues and of 1 Springer book. I have given more than 30 invited talks at international universities and research centers, and more than 20 keynote/plenary lectures at international conferences.