



## INFORMAZIONI PERSONALI

## Pierangelo Metrangolo

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## POSIZIONE RICOPERTA

Professore di I fascia (ordinario)  
 S.S.D. CHIM/07 - Fondamenti Chimici delle Tecnologie  
 Titolare dei seguenti corsi:

- FONDAMENTI CHIMICI PER L'INFORMATICA
- FONDAMENTI DI CHIMICA PER L'ELETTRONICA

TITOLO DI STUDIO Dottorato di Ricerca in Chimica Industriale ed Ingegneria Chimica

 ESPERIENZA  
 PROFESSIONALE
 

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**Posizioni attuali**


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- 2011 -** *Full Professor (ordinario) of Fundamentals of Chemistry for Technologies*, Department of Chemistry, Materials, and Chemical Engineering “Giulio Natta”, Politecnico di Milano.
- 2011 -** *Visiting Professor of Molecular Recognition* at the VTT - Technical Research Centre of Finland.
- 2015 -** *Visiting Professor* at the Centre of Excellence in Molecular Engineering of Biosynthetic Hybrid Materials of Aalto University, Finland.
- 2010 -** *Research Associate* at the Centre for Nanoscience and Technology (CNST@PoliMI) of the Italian Institute of Technology, Milan, Italy.
- 2017 -** *Research Associate* at the Nanotechnology Institute (Nanotec) of the National Research Council (CNR), Lecce, Italy.

**Posizioni precedenti**


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- 2010 - 2009** *Research Professor of Molecular Recognition* at the VTT - Technical Research Centre of Finland.
- 2010 - 2005** *Associate Professor of Fundamentals of Chemistry for Electronics*, Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Politecnico di Milano.
- 2005 - 2002** *Assistant Professor of Fundamentals of Chemistry for Informatics*, Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Politecnico di Milano.
- 2002 - 2002** *Research Associate*, Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Politecnico di Milano, under the research contract entitled “Anions-Driven Self-Assembly of Perfluorocarbons and Hydrocarbons”.

## ISTRUZIONE E FORMAZIONE

- 2003** *Specialization School in Synthetic Organic Chemistry (2 years)*, which P. Metrangolo obtained cum Laude from the Politecnico di Milano on May 30, discussing a thesis entitled “Halogen Bonding-Mediated Fluorinated Coating of Polymers”.
- 2001** *Ph.D. in Industrial Chemistry (3 years)* from the University of Milan on December 18, discussing a thesis entitled “Halogen Bonding: A Paradigm in Supramolecular Chemistry”.
- 1997** *Degree in Pharmaceutical Chemistry and Technology (Laurea, 5 years)* from the University of Milan on July 21, with the score of 110/110, discussing a thesis entitled “Photolysis Reactions of Triazolines: A New Synthesis to Phenantridines”.

## COMPETENZE PERSONALI

Lingua madre Italiano

Altre lingue

|         | COMPRESIONE |         | PARLATO     |                  | PRODUZIONE SCRITTA |
|---------|-------------|---------|-------------|------------------|--------------------|
|         | Ascolto     | Lettura | Interazione | Produzione orale |                    |
| Inglese | C1          | C1      | C1          | C1               | C1                 |

**Competenze comunicative** ▪ possiedo eccellenti competenze comunicative acquisite durante la mia esperienza di divulgatore in eventi pubblici e professionali

**Competenze organizzative e gestionali** ▪ leadership (attualmente responsabile di un team di 25 persone)  
 ▪ Dal 2016 Responsabile del Laboratorio Interdipartimentale di Nanomedicina (NanoMedLab), [www.nanomedlab.polimi.it](http://www.nanomedlab.polimi.it)  
 ▪ Dal 2017 Responsabile del *SupraBioNanoLab* - Laboratorio di Materiali Supramolecolari e Bio-Nanostrutturati del Politecnico di Milano, [www.suprabionano.eu](http://www.suprabionano.eu)  
 ▪ Dal 2020 Direttore Vicario del Dipartimento di Chimica, Materiali ed Ingegneria Chimica “Giulio Natta” del Politecnico di Milano

**Competenze professionali** ▪ Sintesi chimica  
 ▪ Caratterizzazione strutturale  
 ▪ Progettazione di materiali supramolecolari biomimetici e funzionali  
 ▪ Nanomedicina  
 ▪ Chimica del fluoro

Competenze digitali

| AUTOVALUTAZIONE                 |               |                        |           |                         |
|---------------------------------|---------------|------------------------|-----------|-------------------------|
| Elaborazione delle informazioni | Comunicazione | Creazione di Contenuti | Sicurezza | Risoluzione di problemi |
| Avanzato                        | Avanzato      | Intermedio             | Base      | Intermedio              |

- buona padronanza degli strumenti della suite per ufficio (elaboratore di testi, foglio elettronico, software di presentazione)
- buona padronanza dei programmi digitali di ricerca bibliografica e brevettuale e per l'elaborazione digitale di dati sperimentali RX, IR, NMR

**Altre competenze** ▪ Istruttore di arti marziali

**Patente di guida** A e B

## ULTERIORI INFORMAZIONI

### ***Cattedre internazionali***

- *Chairman* dell' Aalto University Node of the UNESCO UNITWIN Project "Green Chemistry Excellence from Baltic Sea to Mediterranean Sea and beyond (GREENOMICS)", dal 2017.
- *Visiting Professor* presso il Centre of Excellence in Molecular Engineering of Biosynthetic Hybrid Materials of Aalto University, Finland, dal 2015.
- *Research Professor of Molecular Recognition* presso il VTT - Technical Research Centre of Finland, dal 2010.

### ***Visiting professorship***

- University of York (RS fellow), UK (2007);
- Nanoscience Center (Center fellow), Jyväskylä (FI) (2006);
- University of York (RSC fellow), UK (2005);
- Université Paul Sabatier (EU fellow), Toulouse (FR) (2001).

### ***Indici bibliometrici***

Autore di 293 articoli (Fonte: ISI WoS Core Collection 17-05-21) pubblicati in giornali internazionali con peer-review, tra cui *Science*, *Chem. Rev.*, *Chem. Soc. Rev.*, *Nature Chem.*, *Nature Commun.*, *ACS Nano*, *Angew. Chem. Int. Ed.*, *Adv. Mater.*, *Adv. Funct. Mater.*, *J. Am. Chem. Soc.*, *Chem. Eur. J.*, *Chem. Commun.*, etc. Sum of the Times Cited: 19808 (17745 without self-citations); H-index = 63. Average citations per article: 63.05; Journal Covers: 22 (2 in *Angew. Chem. Int. Ed.*, 1 in *Adv. Funct. Mater.*, 4 in *ChemComm*, 1 in *J. Mater. Chem. C*, 6 in *CrystEngComm*, 2 in *Chem. Eur. J.*, 2 in *Cryst. Growth Des.*, 1 in *Org. Biol. Chem.*, 1 in *New J. Chem.*, 1 in *J. Polym. Sci. A*, 1 in *Polym. Chem.*); Chapters in international books: 14.

International patents: 5; International patent applications: 8; Invited oral presentations at meetings: 60 (10 plenary, 22 keynote, and 28 invited). Invited seminars at universities and research institutes: 35.

### ***Premi e riconoscimenti***

- *Fluorous Technologies Award*, Shanghai (CN), 9 August **2019**;
- European Research Council (ERC) awardee, Starting Grant **2012** (Consolidator), project "Folding with Halogen Bonding (*FoldHalo*) and";
- *Best Oral Presentation Award* at the 4<sup>th</sup> "International Symposium on Fluorous Technologies (ISoFT'11)", 30 November - 3 December **2011**, Hong Kong (HK);
- *Young Chemist Award* at the 42<sup>nd</sup> IUPAC World Chemistry Congress, 2-7 August **2009**, Glasgow (UK);
- *CrystEngComm Sponsored Lectureship* at the Symposium on Crystal Engineering of the 42<sup>nd</sup> IUPAC World Chemistry Congress, 3 August **2009**, Glasgow (UK);
- *Fellow* of the Royal Society of Chemistry (FRSC), UK, dal **2007**;
- *Recipient* of the "G. Ciamician" Medal **2005** of the Italian Chemical Society, which seeks to honour the most meritorious contribution of a younger chemist, below 35 years of age, working in any area of Organic Chemistry (see *Angew. Chem. Int. Ed.* **2005**, 44, 6614);
- *Recipient* of the *Journals Grant Award for International Authors* **2005** of the Royal Society of Chemistry (RSC), UK;
- *Best Poster Award* of the Institut de Science et d'Ingénierie Supramoléculaires and Université Louis Pasteur of Strasbourg (Director: Nobel Laureate Prof. J.-M. Lehn) at the ESF Research Conference on Supramolecular Chemistry, Strasbourg, France, **2005**.

### ***Seminari su invito in istituti di ricerca e università***

**34**) University of Antwerp, Belgium (2017); **33**) University of Cambridge (UK) (2017); **32**) Nanotechnology Institute-CNR, Lecce (IT) (2016); **31**) Italian Institute of Technology, Lecce (IT) (2016); **30**) Italian Institute of Technology, Genova (IT) (2016); **29**) Bracco Innovation Center, Geneva (CH) (2016); **28**) University of Geneva (CH) (2016); **27**) Free University of Berlin (DE) (2016); **26**) University of Pavia (IT) (2016); **25**) Aalto University (FI) (2015); **24**) University of Tokyo (JP) (2015); **23**) K. University of Leuven, (BE) (2015); **22**) ICIQ-Tarragona (ES) (2014); **21**) University of Trieste (IT) (2014); **20**) University of Geneva (CH) (2013); **19**) CiQUS, University of Santiago de Compostela (ES) (2013); **18**) University of Tokyo (JP) (2012); **17**) Tokyo

Institute of Technology (JP) (2012); **16**) University of Gothenburg (SE) (2012); **15**) University of Geneva (CH) (2011); **14**) University of Namur (BE) (2011); **13**) UMK Center for New Materials, Aalto University, Helsinki (FI) (2010); **12**) University of Jyväskylä (FI) (2009); **11**) University of Cambridge (UK) (2009); **10**) National Institute of Advanced Industrial Science and Technology (AIST), Nagoya (JP) (2008); **9**) University of York (UK) (2007); **8**) Nanoscience Center, Jyväskylä (FI) (2006); **7**) University of Rome “La Sapienza” (IT) (2006); **6**) University of Durham (UK) (2005); **5**) University of Sheffield (UK) (2005); **4**) University of York (UK) (2005); **3**) University of Jyväskylä (FI) (2004); **2**) National Nanotechnology Laboratory (NNL), Lecce (IT) (2003); **1**) University of Paris-Sud XI (Chatenay-Malabry, FR).

***Presentazioni orali su invito a congressi (9 plenarie, 21 keynote, and 28 orali)***

**58)** *1<sup>st</sup> International Conference on Noncovalent Interactions (ICNI)*, Lisbon, Portugal, September 2019 (**keynote** lecture); **57)** *8<sup>th</sup> Peptide Engineering Meeting (PEM8-2018)*, Berlin, Germany, 8-10 November 2018 (**invited** lecture); **56)** *22<sup>nd</sup> International Symposium on Fluorine Chemistry (ISFC2018)*, Oxford, UK, 22-27 July, 2018 (**invited** lecture); **55)** *PEPMAT2018*, London, UK, 16-18 July 2018 (**invited** lecture); **54)** *13<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC2018)*, Quebec City, Canada, 8-13 July 2018 (**invited** lecture); **53)** *2018 Crystal Engineering Gordon Research Conference*, Sunday River, Newry, Maine, USA, 24-29 June, 2018 (**discussion leader**); **52)** *101<sup>st</sup> Canadian Society for Chemistry (CSC) Meeting*, Edmonton, Alberta, Canada, 27-31 May, 2018 (**plenary** lecture); **51)** *HALCHEM VIII*, Inuyama, Aichi, Japan, 12-15 September, 2017 (**invited** lecture); **50)** *24<sup>th</sup> Congress of the International Union of Crystallography (IUCr2017)*, Hyderabad, India, 21-28 August, 2017 (**2 invited** lectures); **49)** *23<sup>rd</sup> International Conference on the Chemistry of the Organic Solid State (ICCOSS-XXIII)*, Stellenbosch, South Africa, 3-7 April, 2017 (**plenary** lecture); **48)** *International Conference on Self-Assembly in Confined Spaces - SACS16*, San Sebastian, Spain, 25 - 27 October, 2016 (**invited** lecture); **47)** *Supramolecular Assembly: Towards Novel Functional Materials and Devices*, Molarnet Workshop, Lecce, Italy, 6-10 September, 2016 (**invited** lecture); **46)** *6<sup>th</sup> IUPAC Conference on Green Chemistry (ICG6)*, Venice, Italy, 4-8 September, 2016 (**keynote** lecture); **45)** *4<sup>th</sup> IUPAC Symposium on Physical and Biophysical Chemistry*, East Lansing, Michigan (USA), August 26, 2016 (**invited** lecture); **44)** *23<sup>rd</sup> IUPAC International Conference on Physical Organic Chemistry*, Sydney, Australia, 3-8 July, **2016** (**invited** lecture); **43)** *2<sup>nd</sup> International Symposium on Halogen Bonding*, Gothenburg, Sweden, 6-10 June, **2016** (**keynote** lecture); **42)** *1<sup>st</sup> South African Fluorine Symposium (SAFS2016)*, Cape Town, SA, 14-18 February, **2016** (**plenary** lecture); **41)** *Annual Meeting of the RSC Macrocyclic and Supramolecular Chemistry Group (MASC-15)*, Durham University, Durham, UK, 21-22 December, **2015** (**plenary** lecture); **40)** *The 18th Symposium on the Society of Iodine Science*, Chiba University, Chiba, Japan, 16 September, **2015** (**keynote** lecture); **39)** *XXI International Conference on "Horizons in Hydrogen Bond Research"*, University of Wrocław, Poland, 13 - 18 September, **2015** (**invited** lecture); **38)** *International Conference on Structural Chemistry of Molecules and Materials*, University of Calcutta, India, November 30 - December 2, **2014** (**invited** lecture); **37)** *2<sup>nd</sup> Indian International Symposium on Fluorine Chemistry*, Hyderabad, India, November 3 - 7, **2014** (**plenary** lecture); **36)** *XXV Congresso Nazionale della Società Chimica Italiana*, Arcavacata di Rende, Cosenza, Italy, September 7 - 12, **2014** (**keynote** lecture); **35)** *7<sup>th</sup> Italian-Japanese Workshop on Liquid Crystals*, Ravenna, Italy, July 7 - 10, **2014** (**invited** lecture); **34)** *1<sup>st</sup> International Symposium on Halogen Bonding*, Porto Cesareo, Lecce, Italy, June 18 - 22, **2014** (**keynote** lecture); **33)** *9<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry*, Shanghai, China, June 7 - 11, **2014** (**invited** lecture); **32)** *International Conference on Fluorine Chemistry 2014*, Tokyo, Japan, May 28 - 30, **2014** (**invited** lecture); **31)** *17<sup>th</sup> European Symposium on Fluorine Chemistry*, Paris, France, July 21-25, **2013** (**keynote** lecture); **30)** *7<sup>th</sup> Workshop on Crystal Forms*, Bologna, Italy, June 9 - 11, **2013** (**invited** lecture); **29)** *96<sup>th</sup> Canadian Chemistry Conference*, Quebec City, Canada, May 26 - 30, **2013** (**invited** lecture); **28)** *International Symposium on Fluorous Technologies (ISoFT'13)*, Budapest, Hungary, June 2 - 5, **2013** (**plenary** lecture); **27)** *Intermolecular Interactions in Crystals*, S. Margherita di Pula, Cagliari, Italy, April 28 - 30, **2013** (**invited** lecture); **26)** *2013 Southeastern Regional Meeting of the American Chemical Society*, Atlanta, USA, November 12-16, **2013** (**keynote** lecture); **25)** *Conference Chemistry: Synthesis, Structure and Dynamics*, December 12-14, **2012**, Bangalore, India (**invited** lecture); **24)** *6th International Meeting on Halogen Chemistry*, December 8-11, **2012**, Bangalore, India (**invited** lecture); **23)** *iCeMS-ERATO Symposium "New Dimensions of Functional Coordination Frameworks"*, July 26-27, **2012**, Kyoto, Japan (**invited** lecture); **22)** *2012 Gordon Research Conference on Crystal Engineering*, June 10-15, **2012**, Waterville Valley Resort, NH, USA (**invited** lecture); **21)** *XLI Congresso Associazione Italiana di Cristallografia*, Verona, Italy,

September 11-14, **2012** (keynote lecture); 20 *2<sup>nd</sup> International Meeting on Organic Materials for a Better Future*, Carovigno, Brindisi, Italy, September 16-20, **2012** (invited lecture); 19 *XXII Congress of the International Union of Crystallography*, Madrid (ES), August 22-30, **2011** (invited lecture); 18 *X Congresso Nazionale di Chimica Supramolecolare*, Perugia (IT), September 25-28, **2011** (keynote lecture); 17 *SAYCS 2011*, Pesaro (IT), October 17-19, **2011** (plenary lecture); 16 *6<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry (6-ISMSC)*, Brighton (UK), July 3 - 7, **2011** (keynote lecture); 15 *16<sup>th</sup> European Symposium on Fluorine Chemistry (16<sup>th</sup> ESFC)*, Ljubljana (SI), July 18-23, **2010** (keynote lecture); 14 *Joint 66<sup>th</sup> SWRM and 62<sup>nd</sup> SERMACS Meeting of the American Chemical Society*, New Orleans (LA USA), December 1 – 4, **2010** (keynote lecture); 13 *Discussion Meeting on Intermolecular Interactions*, Bangalore (IN), November 28 – December 1, **2010** (keynote lecture); 12 *Emerging Themes in Structural Chemistry*, Crystal Growth and Design India Summit, Bangalore India, December 2-3, **2010** (keynote lecture); 11 *9<sup>o</sup> Congresso Nazionale Società Italiana Cristalli Liquidi (SICL'10)*, Cetraro (CZ, IT), July 5 – 6, **2010** (plenary lecture); 10 *American Crystallographic Association Meeting*, Toronto (CAN), July 25-30, **2009** (keynote lecture); 9 *19<sup>th</sup> International Symposium on Fluorine Chemistry*, Jackson Hole (WYO USA), August 23-28, **2009** (invited lecture); 8 *42<sup>nd</sup> IUPAC World Chemistry Congress*, August 3, 2009, Glasgow (UK) (keynote lecture); 7 *10<sup>th</sup> European Conference on Liquid Crystals*, Colmar (FR), April 19-24, **2009** (keynote lecture); 6 *XXXVIII Italian Crystallographic Association Congress*, Salerno (IT), September 20-23, **2009** (keynote lecture); 5 *XXI Congress of the International Union of Crystallography*, Osaka (JP) **2008** (invited lecture); 4 *Symposium on Halogen Bonding*, York (UK), March 18, **2009** (keynote lecture); 3 *2<sup>nd</sup> International Symposium on Fluorous Technologies*, Yokohama (JP) **2007** (invited lecture); 2 *XXX Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana*, Siena (IT) **2005** (plenary lecture); 1 *14<sup>th</sup> European Symposium on Fluorine Chemistry*, Poznan (PL) **2004** (keynote lecture).

#### Organizzazione di congressi internazionali

- Chairman del *14<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC-14)*, Lecce, Italy, June 9-13, 2019;
- Chairman del *2<sup>nd</sup> IUPAC/ICSU Workshop on Crystal Engineering*, Como, Italy, August 31-September 1, 2015;
- Chairman del *21<sup>st</sup> International Symposium on Fluorine Chemistry and 6<sup>th</sup> International Symposium of Fluorous Technologies*, Como, Italy, August 23-28, 2015;
- Chairman del *1<sup>st</sup> IUPAC/ICSU Workshop on Crystal Engineering*, Porto Cesareo, Lecce, Italy, June 18, 2014;
- Chairman del *1<sup>st</sup> International Symposium on Halogen Bonding*, Porto Cesareo, Lecce, Italy, June 18-22, 2014;
- Chairman dell'IUCr 2011 Satellite Workshop “*Categorizing Halogen Bonding and Other Noncovalent Interactions Involving Halogen Atoms*” August 20-21, 2011, Sigüenza, Guadalajara (ES);
- Organizzatore del Symposium “*Halogen Bonding: A World Parallel to Hydrogen Bonding*” at the 238<sup>th</sup> American Chemical Society National Meeting, Washington D.C., August 16-20, 2009;
- Co-chair del Symposium “*Self-organization and self-assembly: From nucleation to crystal growth, from eutectics to photonic and liquid crystals, and from theory to application*” at the XXI Congress and General Assembly of the International Union of Crystallography, Osaka (JP) (August 23-31, 2008);
- Organizzatore del Symposium “*Nanostructured Fluorocarbons: Smart Modules for Self-Assembly*” at the 234<sup>th</sup> American Chemical Society National Meeting, Boston MA, August 17-23, 2007.

#### Attività organizzative e di servizio

- Dal 2020 Direttore Vicario del Dipartimento di Chimica, Materiali e Ingegneria Chimica “Giulio Natta” del Politecnico di Milano;
- Dal 2016 Responsabile del Laboratorio Interdipartimentale di Nanomedicina (NanoMedLab), [www.nanomedlab.polimi.it](http://www.nanomedlab.polimi.it);
- Dal 2017 Responsabile del *SupraBioNanoLab*-Laboratorio di Materiali Supramolecolari e Bio-Nanostrutturati del Politecnico di Milano, [www.suprabionano.eu](http://www.suprabionano.eu);
- 2017-2020 Membro del Comitato di Indirizzo del Dipartimento di Chimica, Materiali ed Ingegneria Chimica “Giulio Natta”;

- 2013-2016 Membro della Commissione Scientifica del Dipartimento di Chimica, Materiali ed Ingegneria Chimica “Giulio Natta”;
- Dal 2011 Membro del Collegio dei Docenti del Dottorato di Ricerca in Chimica Industriale ed Ingegneria Chimica;
- Dal 2013 Membro del Comitato di Gestione del Corso di Laurea in Ingegneria Informatica On Line.

#### ***Ruoli in comitati editoriali di riviste internazionali***

- Chair dell’Editorial Board della rivista della Royal Society of Chemistry, *CrystEngComm* (dal 2017);
- Co-editor della rivista della International Union of Crystallography, *Acta Crystallographica Section B* (dal 2014);
- Membro dell’Editorial Advisory Board della rivista della American Chemical Society, *Crystal Growth and Design* (dal 2014);
- Membro dell’Editorial Advisory Board della rivista della Royal Society of Chemistry, *CrystEngComm* (2013-2017);
- Topic Editor della rivista della American Chemical Society, *Crystal Growth and Design* (2012-2013).

#### ***Ruoli in associazioni chimiche internazionali***

- *Vice-President Elect* of the Physical and Biophysical Chemistry Division (Div.1) of the **IUPAC (2020-2021)**;
- *Titular Member* of the Physical and Biophysical Chemistry Division (Div.1) of the **IUPAC (2016-2019)**;
- *Titular Member* of the Interdivisional Committee on Green Chemistry of the **IUPAC (2016-2018)**;
- *Young Observer Program Delegate* for Italy at the 45<sup>th</sup> **IUPAC** General Assembly, 31 July - 6 August **2009**, Glasgow (UK).

#### ***Coordinatore di progetti di finanziamento nazionali ed internazionali (più rilevanti)***

- *Coordinatore Nazionale del progetto*: “PRIN 2017 New-Generation Nanostructured Fluorinated Materials for <sup>19</sup>F-MRI and their Biophysicochemical Interactions (NiFTy)”, MIUR, 2019-2022;
- *Chairman di*: **3**) ICSU project “CONcepts and termINology in Crystal Engineering ([CONvINCE](#))”, 2014-2019; **2**) IUPAC project no. 2012-044-1-100 “[Basic Terminology of Crystal Engineering](#)”, 2013-2019; **1**) The IUPAC project no. 2009-032-1-100 “[Categorizing Halogen Bonding and Other Noncovalent Interactions Involving Halogen Atoms](#)”, 2010-2011.
- *Coordinator di*: progetto Europeo COST no. D29/0011-03 “New Fluorous Media and Processes for Cleaner and Safer Chemistry” (14 gruppi di ricerca, 7 paesi Europei);
- *Principal Investigator* del progetto dell’European Research Council (**ERC**), Starting Grant **2012** (Consolidator), project “*Folding with Halogen Bonding ([FoldHalo](#))*” (2013-2017);
- *Principal Investigator* del progetto dell’European Research Council (**ERC**), Proof-of-Concept 2017, project “A Minimalist Peptide Elastomer (*MINIRES*)” (2018-2019);
- 2018-2020 “Fibre e tessuti intelligenti ed ECOSostenibili per l’abbigliamento TECNICO e l’alta moda (ECOTECH)”, MIUR, unit leader;
- 2017-2019 “Peptide Elastomerico (MINIRES)”, Switch2Product Innovation Challenge, Politecnico di Milano, project leader.
- 2017-2020 “Translating molecular mechanisms into ALS risk and patient’s well-being (*TRANS-ALS*)”, Fondazione Regionale per la Ricerca Biomedica, Regione Lombardia, coordinatore di unità di ricerca;
- 2020-2022 “Metodi e materiali innovativi per la medicina di precisione e personalizzata (NEWMED)”, Call Hub Ricerca e Innovazione, Regione Lombardia, coordinatore di unità di ricerca;

#### ***Principali collaborazioni in ambito industriale***

- Solvay Specialty Polymers S.p.A.
- ENI S.p.A.
- Canepa S.p.A.
- Bracco Imaging S.p.A.
- Holding Fortore Energia S.p.A.
- Daunia Wind S.r.l.

- S. T. Special Tanks S.r.l.
- Profimed S.r.l.
- Euticals S.p.A.

### Attività di trasferimento tecnologico

- Coordinatore per il Politecnico di Milano del *Joint Research Center* con Solvay Specialty Polymers;
- Referente scientifico del Joint Lab tra Canepa S.p.A. e CNR-Nanotec Lecce;
- Socio Fondatore dello Spin-off del Politecnico di Milano “FluorIT Srl”;
- Vincitore della Innovation Challenge del Politecnico di Milano “Switch2Product”, 2017;
- Assegnatario di un finanziamento “Proof-of-Concept” dell’European Research Council, 2017;
- Inventore di 4 brevetti internazionali concessi;
- Inventore di 8 domande di brevetto internazionale.
- Consigliere scientifico dell’Ambasciata Italiana ad Helsinki.

### Altre attività professionali

- Guest Editor of: **4)** The books “Halogen Bonding: Impact on Materials Chemistry and Life Sciences I and II” of the series *Topics in Current Chemistry*, Springer, **2015**; **3)** The virtual issue of *Crystal Growth and Design* devoted to Halogen Bonding (Vol. VI(8), 18 December **2012**); **2)** The book “*Halogen Bonding: Fundamentals and Applications*” of the series *Structure and Bonding*, Springer, **2008**, Vol. 126; **1)** The special issue of the *Journal of Fluorine Chemistry* devoted to Fluorine Chemistry in Italy (**2004**, 125).
- Member of: **9)** The International Advisory Board of *The International Conferences on Noncovalent Interactions (ICNI)*; **8)** The Committee of *Halogen Bonding in Supramolecular and Solid State Chemistry - Faraday Discussion*, 10 - 12 July 2017, Ottawa, Canada; **7)** The International Advisory Board of *The International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC)*; **6)** The International Advisory Board of *The International Symposium on Halogen Bonding (ISXB)*; **5)** The Committee of the *Faraday Discussion on Halogen Bonding*; **4)** The International Advisory Board of *The International Symposium on Fluorous Technology (ISoFT)*; **3)** The Steering Committee of *The International Symposium on Fluorine Chemistry*; **2)** The Advisory Committee of *The 3<sup>rd</sup> Collaborative Conference on Crystal Growth*; **1)** The International Advisory Board of the *International Meeting on Halogen Chemistry (Halchem)*.
- Reviewer for National and International Funding Agencies: - The European Research Council (**ERC**); - Petroleum Research Fund of the American Chemical Society (**PRF**); - Agence Nationale de la Recherche (**ANR**); - Croatian Science Foundation (**CSF**); - National Research Foundation of South Africa (**NRF**); - American National Science Foundation (**NSF**); - Ministero dell’Università e della Ricerca (**MIUR**), Firb, Prin, VQR; - University of Padua, - University of Trieste.
- External PhD evaluator for: The University of Gothenburg (SE), the University of Antwerp (BE), the Indian Institute of Science (IN), the University of Barcelona (ES), the University of Jyväskylä (FI), the University of Milan (IT).
- Referee for international ISI journals: around **30** papers per year; *Science*, *Nature Chem.*, *Nature Nanotech.*, *Angew. Chem. Int. Ed.*, *Chem. Rev.*, *Chem. Soc. Rev.*, *J. Am. Chem. Soc.*, *Chem. Eur. J.*, *Chem. Commun.*, *J. Mater. Chem.*, *J. Org. Chem.*, *Org. Lett.*, *J. Mol. Biol.*, *Cryst. Growth Des.*, *CrystEngComm*, *Tetrahedron Lett.*, *Tetrahedron*, *Dalton Trans.*, *Phys. Chem. Chem. Phys.*, *ChemPhysChem*, *New J. Chem.*, *Supramol. Chem.*, *J. Fluorine Chem.*, *Int. J. Chem. Kinetics*, *J. Chem. Crystallogr.*, *Chem. Papers*, *J. Environ. Chem. Ecotox.*, *J. Incl. Phenom. Macrocycl. Chem.*, *Inorg. Chem.*, *Curr. Opin. Solid State Mater. Sci.*, *Expert Opin. Biol. Ther.*, *Int. J. Quantum Chem.*, *Beilstein J. Org. Chem.*.
- Member of: - The American Chemical Society (Division of Organic and Fluorine Chemistry); - The Royal Society of Chemistry; - The European Crystallographic Association; - The Italian Chemical Society (Division of Organic Chemistry); - The Italian Association of Chemical Engineering; - The Italian Association of Crystallography; - Italian Liquid Crystals Society.
- Member of: - The Steering Committee of the *Interdivisional Focus Group on Structural Chemistry* of the Italian Chemical Society.
- Official Italian translator of the books: **2)** “*Chemistry for Engineers*” by M. J. Shultz, Ed. Houghton Mifflin: Boston (**2007**); **1)** “*Chemistry: Structure and Dynamics*” by J. N. Spencer, G. M. Bodner, and L. H. Rickard, Ed. John Wiley & Sons: New York (**2002**).