

Teresa Celestino

Chemistry Teacher & PhD candidate in Chemical Education

Place of birth: Brindisi (IT)

Date of birth: 05/12/1975

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Languages:

Italian (native proficiency)

English (professional working proficiency)

French (professional working proficiency)

Education

- Jan 2012 – present* **University of Camerino**
PhD, Chemical education
Camerino, Italy
- Nov 2010 – May 2011* **Ca' Foscari University**
"Didattica delle lingue moderne – Apprendimento in LS" (300 h, 12 CFU)
Post graduate CLIL methodology course
Venice, Italy
- Oct 2009 – Oct 2010* **Ca' Foscari University**
"Intercultural and Environmental Management of Schools" (1500 h, 60 CFU)
Post graduate international course on school management
Venice, Italy
- July 2008 – May 2009* **Tor Vergata University**
"Alimenti, Alimentazione e Nutrizione" (1500 h, 60 CFU)
Post graduate food science course
Rome, Italy
- July 2007 – May 2008* **Tor Vergata University**
"Natura e Scienza, Episteme e Didattica" (1500 h, 60 CFU)
Post graduate philosophy of life sciences course
Rome, Italy
- July 2006 – Oct 2006* **Suor Orsola Benincasa University**
Specialization in special needs teaching (400 h)
Naples, Italy
- Oct 2004 – May 2006* **Ca' Foscari University**
Two-year high school teaching specialization (135 CFU). Teaching qualifications
in: Chemistry&Chemical Technologies; Chemistry, Biology and Earth Sciences.
Venice, Italy
- Nov 1994 – Nov 2001* **University of Trieste**
Chemistry, Master's degree
Trieste, Italy

Research Experience

- Jan 2012 – present* **Chemical education research**
University of Camerino, Chemical Sciences Department
Camerino, Italy
- Nov 2003 – Sep 2004* **Pharmaceutical research**
AREA Science Park, Eurand spa
Trieste, Italy
- Feb 2002 – Oct 2003* **Biotechnology research**
AREA Science Park, International Centre for Genetic and Biotechnology
Trieste, Italy

Teaching Experience

- Nov 2003 – present* **Chemistry teacher**
Public high schools
Italy
- Oct 2005 – May 2006* **Special needs university students tutor**
University Ca' Foscari, ICT Department
Venice, Italy
- Sep 2005* **Didactic assistant for languages self-learning activities**
University Ca' Foscari, Center for foreign languages learning
Venice, Italy

Blogging

- Nov 2015* **Italian Society of Chemistry Blog**
Post: *Questionario per docent – Il concetto di sistema nella didattica.*
- Dec 2013* **Italian Society of Chemistry Blog**
Post: *Valorizzare i percorsi di ricerca in Didattica della Chimica.*
- May 2013 – present* **Associazione Culturale Chimicare**
Author of chemical education articles and CLIL biochemistry modules.
- Dec 2008 – June 2012* **Linx Edizioni (Pearson)**
Blog on chemical education (238 posts).
- Mar 2006 – May 2007* **Blogosfere network**
Blog on education policies (300 posts).

Awards & Grants

- Oct 2015* Selected to receive a Travel Award - from the Division of Chemical Education of the American Chemical Society - to participate and present a paper at the 2016 Biennial Conference on Chemical Education to be held at the University of Northern Colorado, July 31 – August 4, 2016.
- Sep 2015* Scholarship for the VII School of chemical education “Ulderico Segre” for university teaching, organized by the Italian Society of Chemistry.
- Sep 2014* Travel award for the participation at the XXV Italian Society of Chemistry National Congress.
- May 2013* Scholarship. I was classified at the tenth position out of 60 pre-selected teachers (at regional level) for the two-year post degree course “Professione formatore in didattica delle scienze” (University “Tor Vergata” of Rome) financed by the Italian government in order to form a teachers’ trainers team (I couldn’t enroll because of the incompatibility with my PhD candidate status).
- Oct 2011* Scholarship. I was selected amongst the first 30 out of 200 European teachers for the EIROforum Teachers’ School 2011 in Grenoble.
- Oct 2012* Travel grant from the History of Chemistry Division of the American Chemical Society in order to represent the Division on the occasion of *Citation for Chemical Breakthrough Award* to the Scientific Liceo “A. Avogadro”(Vercelli, Italy).
- July 2008* Scholarship. Refresher course attendance financed by European Life Long Learning Programme Comenius at the University of Barcelona.
- Mar 2006* I get through an open competition as analytical chemist at the laboratory of Italian Customs Agency (employment refused).
- Feb 2005* I was selected by psycho-aptitude tests in order to work as special needs students tutor at the University “Ca’ Foscari” of Venice.
- Mar 2002* Scholarship. I won a competition at national level for 20 vacant posts for a 240-hour post-graduate specialization course financed by BPM (People’s Bank of Milan) and Assolombarda (Lombardy’s Manufacturers’ Association).

Publications

Textbooks

- T. Celestino: *Le soluzioni della chimica - Quinto anno*. Pearson (2012), p. 136, ISBN: 9788863644432.
- T. Celestino: *Le soluzioni della chimica - Secondo biennio*. Pearson (2012), p. 336, ISBN: 9788863644425.
- T. Celestino: *Le soluzioni della chimica - Primo biennio*. Pearson (2011), p. 192, ISBN: 8863641404.

Journal Publications

- T. Celestino, F. Marchetti: *The Chemistry of Cat Litter: Activities for High School Students to Evaluate Commercial Product's Properties and Claims Using the Tools of Chemistry*. Journal of Chemical Education (2015). Vol. 92 (8), p. 1359–1363. DOI: 10.1021/ed500505j.
- T. Celestino, M. Piumetti: *Developing Global Competences by Extended Chemistry Concept Maps*. School Science Review (2015). Issue 357, p. 114-121.
- M. Piumetti, T. Celestino: *Study on chemistry learning and its assessment*. La Chimica nella Scuola (2014). Vol. 2, p. 63-72. DOI: 10.4399/97888548708267.
- T. Celestino: *A Citation for Chemical Breakthrough Award to an Italian High School, the Scientific Liceo "Amedeo Avogadro" of Vercelli, for Avogadro's 1811 Paper*. Bulletin for the History of Chemistry (2013). Vol. 38 (1), p. 1-3.
- T. Celestino, F. Marchetti: *Promuovere l'apprendimento della chimica analizzando un prodotto commerciale*. Newsletter PROFILES (2015). Issue 13, p. 7-9.
- T. Celestino: *The ethics of green chemistry teaching*. Education in Chemistry (2013). Vol. 50 (3), p. 24-25.
- T. Celestino: *Chimica Etica*. Linx Magazine (2011). Issue 8, p. 38-42.
- T. Celestino: *Il Green Public Procurement nella scuola*. Il Chimico Italiano (2011). Vol. 1, p. 13-16.
- T. Celestino: *Chimica: un approccio storico*. Linx Magazine (2009). Issue 2, p. 26-29.
- C. Crotti, E. Farnetti, T. Celestino, M. Stener, S. Fontana: *Donor Properties of Diphosphine Ligands in Tungsten Carbonyl Complexes: Synchrotron Radiation XPS Measurements and DFT Calculations*. Organometallics (2004). Vol. 23 (22), p. 5219–5225. DOI: 10.1021/om0495978
- C. Crotti, E. Farnetti, T. Celestino, S. Fontana: *Preparation of solid-state samples of a transition metal coordination compound for synchrotron radiation photoemission studies*. Journal of Electron Spectroscopy and Related Phenomena (2003). Vol. 128 (2-3), p. 141–157. DOI: 10.1016/S0368-2048(02)00272-4

Conference Proceedings

- T. Celestino, F. Marchetti: *Global Competences in Chemical Education by Systems Approach*. Proceedings of the 9th International Technology, Education and Development Conference held in Madrid (2015), p. 1635-1642, IATED Academy. ISBN: 978-84-606-5763-7.
- T. Celestino: *Ethical Issues in Chemical Education. Evaluating Daily Life Products*. Proceedings of the International Conference in Science Education held in Florence (2014), p. 41-45, Libreriauniversitaria.it, Padova. ISBN: 8862924690.
- T. Celestino: *La storia della chimica nella didattica: alcune proposte*. VI National Conference on Chemistry Education Proceedings (2008), p. 8-11, University "A. Moro" of Bari.

Conference Abstracts

- T. Celestino, F. Marchetti: *Global Competences in Chemical Education by Systems Approach*. Abstracts of the 9th International Technology, Education and Development Conference (2015), abstract no. 469, IATED Academy. ISBN: 978-84-606-5761-3.
- T. Celestino, F. Marchetti: *Global Competences and Philosophical Implications in Chemical Education*. XXV Italian Society of Chemistry National Congress Abstracts Book (2014), p. 970, University of Calabria.

- T. Celestino: *Sustainable Development in Chemical education*. ICCE-22nd International Conference on Chemical Education/ECRICE-11th European Conference on Research In Chemical Education Abstracts Book (2012), p. 395, University "La Sapienza" of Rome.
- C. Crotti, T. Celestino, E. Farnetti, M. Stener, S. Fontana: *Synchrotron radiation photoemission study of tungsten carbonyl complexes*. XXX Inorganic Division of the Italian Society of Chemistry National Congress Abstracts Book (2002), no. CO05, University of Modena.

Book chapters

- T. Celestino: *Green Public Procurement, Chimica ed Etica*. Intercultural and Environmental Management of Schools 3 EMI – Compendium of the didactic project works (2010), Ed. by E. Elamé, p. 59-67, University Ca' Foscari, Venice.
- T. Celestino, F. Marchetti: *A Consumer Chemistry Case Study to Promote Inquiry-Based Learning*. PROFILES (Professional Reflection Oriented Focus on Inquiry-based Learning and Education through Science) – Exemplary Practices for Meaningful Teaching and Learning (2015), Ed. by L. Cardellini, Università Politecnica delle Marche. ISBN: 978-88-87548-05-1. Provisional edition.

Posters

- T. Celestino, F. Marchetti: *Ethical issues in chemical education. Evaluating daily life products*. Seminar "Ricerca in Science Education", University of Camerino, 16/01/2014.
- T. Celestino: *Sustainable chemistry in education*. Seminar "Ricerca in Science Education", University of Camerino, 16/01/2014.
- T. Celestino: *Sustainable Development in Chemical education*. ICCE-22nd International Conference on Chemical Education/ECRICE-11th European Conference on Research In Chemical Education, University "La Sapienza" of Rome, 15-20/07/2012.
- T. Celestino, L. Magarotto, M. Grassi: *Caratterizzazione chimico-fisica del polivinilpirrolidone reticolato*. Workshop "La risorsa umana motore dell'innovazione nell'impresa", University of Udine, 09/09/2004.
- C. Crotti, T. Celestino, E. Farnetti, M. Stener, S. Fontana: *Synchrotron radiation photoemission study of tungsten carbonyl complexes*. XXX Inorganic Division of the Italian Society of Chemistry National Congress, Modena 15 – 19/09/2002.

Speechs

- Global Competences and Philosophical Implications in Chemical Education*. XXV Italian Society of Chemistry National Congress, University of Calabria, 7-12/09/2014.
- Questioni Etiche in Chimica a Partire da Prodotti di Uso Quotidiano*. Seminar organized by the Italian Association of Physics Teachers (invited speaker), Liceo Scientifico "G. B. Grassi" of Latina, 11/03/2014.
- The Chemistry's Citation for Chemical Breakthrough awards*. Conference as Italian representative of the History of Chemistry Division of the American Chemical Society (invited speaker), Liceo Scientifico "A. Avogadro" of Vercelli, 20/10/2012.

La chimica tra linguaggi, storie, visioni. Seminar (invited speaker), People's University of San Vito dei Normanni (BR), 10/12/2011.

La chimica nell'anno internazionale della chimica: quali prospettive? Educational and vocational counseling (invited speaker), Liceo Scientifico "L. Leo" of San Vito dei Normanni (BR), 10/12/2011.

La fermentazione: dal dibattito storico all'aroma del pane. Seminar for the IYC 2011 sponsored by the Italian Society of Chemistry and UNESCO (invited speaker), Liceo Scientifico "G. B. Grassi" of Latina 29/04/2011.

La storia della chimica nella didattica: alcune proposte. VI National Conference on Chemistry Education (invited speaker), University "A. Moro" of Bari, 30-31/2010.

La Chimica dell'invisibile: studio e scoperta della radioattività. Seminar (invited speaker), University of Camerino, 13/05/2009.

La storia della Chimica nella scuola superiore. Seminar (invited speaker), University of Basilicata, 09/09/2008.

Professional development courses

24 Apr 2016	ECTN (European Chemistry Thematic Network) Coaching session to enter the ECTN Panel of Experts Gdansk, Poland
7-9 Sep 2015	"Federico II" University VII School of chemical education for university teaching "Ulderico Segre" Naples, Italy
9-12 Oct 2011	European Photon and Neutron Science Campus "Physics and chemistry of life"- Course for teachers' professional development Grenoble, France
21-25 July 2008	Autonomous University of Barcelona "Plant biodiversity and health"- Course for teachers' professional development Barcelona, Spain
8-10 May 2005	Ca' Foscari University "Disabilità e handicap"- Course for tutors' professional development Venice, Italy
Mar 2002 – Jun 2002	People's Bank of Milan "XXIII Corso Integrato Interdisciplinare Natale Toffoloni" 240-hour course on management, accounting, public speaking Milan, Italy

On-line courses:

<i>Feb 2015 – Mar 2015</i>	Autonomous University of Barcelona “English for Teaching Purposes” Coursera Verified Certificate, License UKKZA93V45
<i>Sep 2014 - Nov 2014</i>	Johns Hopkins University “Chemicals and Health” Coursera Verified Certificate, License KBX6LK3CS6
<i>Oct 2014 - Nov 2014</i>	ESSEC Business School “L'avenir de la décision : connaître et agir en complexité” Coursera Certificate
<i>16-30 Nov 2013</i>	Associazione Culturale Chimicare “Tecniche e tattiche nel blogging scientifico-divulgativo” 8-hour webinar on scientific blogging techniques

Other information

<i>Scientific Memberships</i>	Italian Society of Chemistry, American Chemical Society, Ordine Chimici LUAM, Associazione Culturale “Chimicare”. Member of the Chemical Education Division National Committee of the Italian Society of Chemistry for a three-year period (2016-2018)
<i>Interests</i>	Chemical education research, science communication, global education. Selected by the International Baccalaureate Organization as examiner for Chemistry (higher level, paper 3 and extended essay).