

## CURRICULUM VITAE

# UMBERTO ANSELMI TAMBURINI

Sept 2023

### EDUCATION

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1986

Ph.D. Chemical Sciences  
Department of Physical Chemistry  
University of Pavia  
Pavia, Italy

1982

MS Chemistry cum laude  
Department of Physical Chemistry  
University of Pavia  
Pavia, Italy

### ACADEMIC EXPERIENCE

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2018 – present

Full professor of Physical Chemistry  
University of Pavia, Italy  
Department of chemistry

1998 - 2018

Associate Professor of Physical Chemistry  
University of Pavia, Italy  
Department of Chemistry

2002 - 2008

Visiting scientist  
University of California, Davis  
Department of Chemical Engineering and Materials Science

1990 - 2009

Associate Researcher  
Italian National Research Council (CNR)  
Institute for Energetics and Interphases (Pavia branch)

1987 - 1988

Post-doctoral fellow, NATO Advanced Fellowship recipient  
University of California, Davis  
Division of Materials Science and Engineering

1986 - 1998

Assistant Professor  
University of Pavia, Italy  
Department of Physical Chemistry

1982-1983

Post-graduate researcher  
University of Genoa, Italy  
Chemical division,  
School of Engineering

## **PROFESSIONAL ACTIVITIES AND AFFILIATIONS**

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### **Offices Held and Committee Memberships**

2013 - present

Chair of the division of Physical Chemistry, Department of Chemistry, University of Pavia, Italy.

2007 - 2013

Vice-chancellor, University of Pavia, Italy.

2011– present

Member of the National Committee for the Electronic Library Resources (CARE) appointed by the Conference of Italian Universities (CRUI).

2009 - 2013

Promoter and President, Pavia University Press.

2008 – 2013

President, Pavia Digital Archives Initiative

2002-2007

Member of several Ph.D. qualifying committees, University of California, Davis.

2001-2004

Member of the Board for Evaluation of Campus Performances (NuV), University of Pavia, Italy.

1999 – 2003

Member of the Evaluation Committee for On-campus Research Funding for Chemistry (*FAR*), University of Pavia, Italy.

2001-2002

Chair of the Board for the Evaluations of the Campus Library system, University of Pavia, Italy.

1995– 2001

Member of the Scientific Board of Campus Central Computer Facility, University of Pavia, Italy.

1995-2001

Promoter and member of the Committee for the Informatization of the Campus Library Catalog.

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## TEACHING AND MENTORING

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### Courses Taught

Physical Chemistry II (quantum mechanics, statistical thermodynamics, thermodynamic of irreversible processes)  
Physical chemistry of metals and ceramics (6 years)  
Chemistry and technology of materials (7 years)  
Nanochemistry and nanomaterials (6 years)  
Experimental Physical Chemistry with lab (Chemical Kinetics) (18 years)  
Experimental Physical Chemistry with lab (Thermodynamics) (5 years)  
Chemistry of Materials (5 years)  
Physical Chemistry of Complex Systems (5 years)  
Physical Chemistry (Thermodynamics) (5 years)  
Experimental Techniques in Physical Chemistry (5 years)  
Organic Electrochemistry (Conductive Polymers) (3 years).  
Thermodynamics and Phase Diagrams (5 years).

### Graduate and Undergraduate Student Supervision

Supervised the thesis of over 40 graduate students in Chemistry.

## RESEARCH ACTIVITIES

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### Areas of Interest

High entropy oxides

Influence of nanostructure on the electrical properties of bulk ionic materials

Field assisted sintering of ionic and metallic materials in bulk nanocrystalline form

Influence of electric currents and electric fields on solid state sintering and reactivity

New methods for the deposition of films of ionic oxides from solution chemistry

Use of soft lithography and nanoimprint lithography for the synthesis of complex nanostructures of ionic materials for sensing and energy scavenging applications

Interaction of nanostructures with biological systems

## Combustion Synthesis of High Temperature Materials.