



## Valentim Nunes

**Nationality:** Portuguese **Date of birth:** 11/6/1964 **Gender:** Male

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**Work:** Instituto Politécnico de Tomar Campus da Quinta do Contador - Estrada da Serra, 2300-313 Tomar (Portugal)

### EDUCATION AND TRAINING

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#### PhD in Chemistry

*University of Lisbon* [ 1998 – 2007 ]

#### MSc in Physical Chemistry

*University of Lisbon* [ 1993 – 1997 ]

#### Scientific Capacity

*University of Coimbra* [ 1987 – 1990 ]

#### Bachelor (Licenciatura) in Chemistry

*University of Lisbon* [ 1982 – 1986 ]

### WORK EXPERIENCE

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#### Research

*Smart Cities Research Centre of the Polytechnic of Tomar* [ 2018 – Current ]

Research in Sustainable Resources Management. Hydrogen production via wastewater electrolysis.

#### Research

*Centre of Structural Chemistry of the University of Lisbon* [ 2015 – Current ]

Research in thermophysical properties of fluids: molten salts and ionic liquids.

#### Professor

*Polytechnic Institute of Tomar* [ 1992 – Current ]

Teaching in Thermodynamics, Electrochemistry, Surface Chemistry, Material Science, etc.

#### Visiting Professor

*Mehmet Akif Ersoy Üniversitesi, Turkey* [ 11/12/2018 – 15/12/2018 ]

Teaching in Thermodynamics and thermophysics of fluids and materials.

### **Visiting Professor**

*Southern Federal University Faculty of Chemistry, Russia* [ 3/9/2018 – 7/9/2018 ]

Teaching in Thermodynamics and thermophysics of fluids and materials.

### **Visiting Professor**

*Osmaniye Korkut Ata Üniversitesi, Turkey* [ 7/6/2017 – 10/6/2017 ]

Teaching in Thermodynamics and thermophysics of fluids and materials.

### **Research**

*Centre of Molecular Sciences and Materials of the University of Lisbon* [ 1998 – 2014 ]

Research in thermophysical properties of fluids: molten salts and ionic liquids.

### **Visiting Professor**

*Donetskii natsional'nyi tekhnicheskii universitet, Ukraine* [ 12/2013 – 12/2013 ]

Teaching in Thermodynamics and thermophysics of fluids and materials.

### **Research**

*Centre of Science and Technology of Materials of the University of Lisbon* [ 1993 – 1998 ]

Research in thermophysical properties of fluids and materials, including molten salts and ionic liquids.

### **University research assistant**

*University of Coimbra* [ 1987 – 1992 ]

Research in Thermodynamic and transport properties of aqueous and non-aqueous solutions.

### **Trainee in Research**

*Centre of Electrochemistry and Kinetics of the University of Lisbon* [ 1986 – 1986 ]

Research in kinetics of chemical reactions.

## **ORGANISATIONAL SKILLS**

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### **Organisational skills**

Member of several units of the Polytechnic Institute of Tomar:

1. Scientific Council
2. Quality and Accreditation board
3. Course Degree management,
4. etc...

## **MANAGEMENT AND LEADERSHIP SKILLS**

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### **Management**

Head of the Degree Program in Chemical Technology of the Polytechnic of Tomar.

## **CONFERENCES AND SEMINARS**

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### **Participation in Conferences and Seminars**

Participated in 60 Conferences and seminars. More recently:

1. 28th EuChem Conference on Molten Salts & Ionic Liquids, 5-10 June, Patras, Greece, 2022
2. International Conference on Engineering, Natural and Applied Science, ICENAS'21, 24-26 November, Osmaniye, Turkey, 2021

3. XXIV Meeting of the Portuguese Electrochemical Society, 20-22 October, Tomar, 2021
4. Euchems Webinar, The Carbon Element - Key Towards a Sustainable Society, 22nd April, Brussels, 2021
5. 3rd International Conference on Technology and Science, Techno-Science2020, 18-20 December, Antalya, Turkey, 2020

## PROJECTS

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### Scientific and Educational Projects

Participated in several projects, more recently:

1. 2021 - 2024 FOREST - Future-ORiented chEmiSTry. KA2 Erasmus+ Capacity Building in Higher Education, 619116-EPP-1-2020-1-SE-EPPKA2-CBHE-JP - funded by Erasmus+, Brussels, Belgium
2. 2020 - 2023 H2-REnWaste - Production of Hydrogen with Renewable Energy Using Wastewater, UIDP/05567/2020/01 - funded by FCT, Lisbon, Portugal
3. 2021/04 - 2022/09 Measurement of the Thermal Conductivity and Viscosity of Gallium / Indium / Tin Eutectic - Galinstan, 931209 - funded by the Institute of Air Handling and Refrigeration (ILK), Dreden, Germany
4. 2016 - 2020 NANOUP TAKE Overcoming Barriers to Nanofluids Market Uptake, COST Action CA15119- funded by the European Cooperation in Science and Technology, Brussels, Belgium
5. 2017/07 - 2019/01 VALORBIO - Valorização de resíduos através de zonas húmidas construídas modulares usadas para tratamento de águas residuais, SAICT-POL/23314/2016 - funded by FCT, Lisbon, Portugal

## PUBLICATIONS

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### Scientific Production

Published 8 papers in Conference Proceedings, 15 papers in international peer-reviewed journals, 4 book chapters, and presented 64 oral or poster communications both in national and international conferences and seminars. More recent publications are:

1. Nunes, Valentim; Cartaxo, Marco; Fernandes, José; Gomes, Mário H. ; Pinho, Henrique J. O.; Coelho, P.. "Wastewater Electrolysis for Hydrogen Production". *Portugaliae Electrochimica Acta* 41 (2023): 57-80.
2. Nieto de Castro CA; Lourenço M J V; Santos, Fernando J.V.; Manuel Luis Matos Lopes; Nunes, Valentim. "Thermophysical Properties of Fluids and Materials for Energy Applications. From Macro to Nano World". *Vid. Proc. Adv. Mater.* 3 ID 2206302 (2022): 1-3.
3. Nunes, V.M.B.; Lourenço, M.J.V.; Santos, F.J.V.; Nieto de Castro, C.A.. "Molten alkali carbonates as alternative engineering fluids for high temperature applications". *Applied Energy* 242 (2019): 1626-1633.
4. Nunes, V.M.B.; Queirós, C.S.G.P.; Lourenço, M.J.V.; Santos, F.J.V.; Nieto de Castro, C.A.. "Viscosity of Industrially Important Zn-Al Alloys Part II: Alloys with Higher Contents of Al and Si". *International Journal of Thermophysics* 39 5 (2018)
5. Gonçalves Otília; Alves Marco; Grácio Joana; Nunes, Valentim. "A Comparative Study of Raspberry Dehydration by Lyophilisation or Conventional Drying". *International Advanced Researches and Engineering Journal* 2 3 (2018): 267-272.

## NETWORKS AND MEMBERSHIPS

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### Portuguese Society of Chemistry

Member of the Portuguese Society of Chemistry since 1982.

Member of the National Commission for the Celebration of the International Year of the Periodic Table of Elements, 2019

## LANGUAGE SKILLS

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Mother tongue(s): **Portuguese**

Other language(s):

### English

**LISTENING B2 READING C1 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

### French

**LISTENING B1 READING B1 WRITING B1**

**SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1**

## **DRIVING LICENCE**

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**Driving Licence:** B

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*Valentim Nunes, Associate Professor*

*Tomar, 23/3/2023*