

1. Personal data

ELVIRA M.C. FORTUNATO

ID nº 06489596, Born 22 July 1964, Almada, Portugal, Married | one daughter.

2. Affiliation

CENIMAT|I3N – Centro de Investigação de Materiais | Laboratório Associado – Instituto de Nanoestruturas, Nanofabricação e Nanomodelação

Departamento de Ciência dos Materiais, FCT/UNL

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3. Education and degrees

- 2005** Habilitation in Microelectronics and Optoelectronics, New University of Lisbon, Portugal. Thesis title: “Thin Film Transistors based on ZnO thin films”;
- 1995** Ph.D. in Microelectronics and Optoelectronics, New University of Lisbon, Portugal. Thesis title: “Large area thin film position sensitive detectors based on a-Si:H”;
- 1991** MSc in Semiconductor Materials, New University of Lisbon, Portugal. Thesis title: “Determination of the Density of States of a-Si:H by Space Charge Limited Currents”;
- 1987** Diploma in Materials Science and Physics, with Microelectronics specialization, UNL, Portugal.

4. Awards and Honors

Before 2008

- 1993** Honorable Mention from “Prémio Anímee de Inovação e Criatividade” for the work: *Position Sensitive Detector based on Amorphous Silicon*, ENDIEL’93.
- 1993** Honorable Mention from “Prémio Anímee de Inovação e Criatividade” for the work: *Development and characterization of crystalline Si photodiodes*, ENDIEL’93.
- 1997** Honorable Mention from “Prémio Anímee de Inovação e Criatividade” for the work: *3D linear PSD based on amorphous silicon*, ENDIEL’97.
- 1999** Elected as one of the 12 young’s Portuguese Scientists, with more scientific publications in Portugal from “Público” newspaper.
- 2002** Distinguished by Frost & Sullivan with the work on oxide transparent conductors deposited on plastic substrates (<http://www2.uninova.pt/cemop/newsroom/december2002/frost.php>).
- 2005** MCTES-FCT award for Scientific Research Excellence.
- 2007** City of Almada Gold Medal for Scientific Achievements.
- 2007** Elected member of the Academia de Engenharia.

2008

- Research Prize awarded by “O Ribatejo” newspaper.
- Prize “Seeds of Science” in the field of Science and Engineering by “Ciência Hoje”.
- Professional of the Year 2008, by the Rotary Club of Costa de Caparica.
- Innovation 2008 prize, from *Exame Informática* magazine.

2009

- Granted a congratulatory vote by the Portuguese Parliament, with unanimity and acclaim, for the quality of her scientific career.
- The Research and Technology 2008-09 award, from the Rotary 1960 District.
- Person of the Year 2009, by the APMDS
- Elected “Mulheres de Vermelho” pela Fundação Portuguesa de Cardiologia.
- First place in the “Green Awards 2009” for her work on the paper transistor.
- Elected honorary member of the Rotary Club of Almada, the highest distinction of the Rotary.
- She was commended by the European Union Women Inventors & Innovators Network with a special award of scientific recognition for Transparent Electronics and Paper-e, Finland.
- Doctor Honoris Causa by Galati University, Romania.
- IDTechEx Printed Electronics USA, 09 Academic R&D award for the work on Paper-e®.

2010

- Order of Infante D. Henrique, degree: “grande oficial”, attributed by the President of The Portuguese Republic, during the solemn Ceremony Commemorative of the National day of Portugal, Camões and the Portuguese Communities, held in Faro, 10 June.
- FEMINA prize in the category of Scientific Merit.
- JID best paper award 2010 from Korean Information Display Society to the work "Self-sustained n-Type Memory Transistor Devices Based on Natural Cellulose Paper Fibers" by R. Martins, L. Pereira, P. Barquinha, N. Correia, G. Gonçalves, I. Ferreira, C. Dias, N. Correia, M. Dionísio, M. Silva and E.

Fortunato.

- Gold Mercury Sustainability Award, Category: Personality of the Year.

2011

- Nominated for the Körber European Science Award 2011, Koerber Foundation, Germany.
- Member of the AcademiaNet Germany.

5. Professional Activities

- 2012-...** Member of the Scientific Council of “Fundação Francisco Manuel dos Santos”.
- 2012-...** Full Professor, Materials Science Department, FCT-UNL.
- 2012-...** Member of the National Scientific and Technological Council (CNCT).
- 2006-...** Representative of the Research Centers of FCT-UNL at the Scientific Council.
- 2009-...** Member of the Executive Board of the Materials Science Department.
- 2009-...** Member of the Scientific Council of the TICE.PT, recognized by the Portuguese Government in August 2009, as part of the QREN's Strategies for Collective Efficiency.
- 1998-2012** Associate Professor, Materials Science Department, FCT-UNL.
- 1998-...** Director of the Materials Research Center (CENIMAT|I3N) – FCT/UNL.
- 2008-...** Member of the Scientific Council for Exact Sciences and Engineering from FCT-MEC.
- 2004-2011** Member of the grant panel in the area of Materials Science and Engineering from FCT-MCTES.
- 2009-...** Invited evaluator of the European Research Council.
- 2006-...** Invited evaluator of the National Science Foundation, USA.
- 2007-...** Invited evaluator of the FP6 and FP7 European Projects.
- 2002-...** Invited evaluator from several Research Agencies like the ones from: Luxembourg, Ireland, Italy, Spain, Sweden, Finland, Canada, Swiss, Netherlands, United Kingdom, South Africa.
- 2004-...** Invited evaluator for the European Science Foundation
- 2007-2009** Director of the Associate Laboratory I3N.
- 1991-2009** Member of the Advisory Board of the Materials Science Department.
- 1995-1997** Assistant Professor, Department of Materials Science, of FCT-UNL
- 2001-2004** Vice-President of the Advanced Learning Institute (IFORNOVA).
- 1999-2003** Member of the Advisory Board of the Almada Energy Agency.
- 1997-2005** Portuguese Responsible of the European Master on Renewable Energies.
- 1997-1998** Member of the Directive Board of the Faculty of Sciences and Technology from UNL.
- 1996-2007** Responsible of the Semiconductor Materials group from de Materials Science Dep.
- 1996-1998** Member of the Directive Board of the Materials Research Center from UNL.
- 1993-1995** Member of the Management Board of the Materials Science Department.
- 1992-1993** Member of the Directive Board of the Faculty of Sciences and Technology from UNL.
- 1987-1991** Teaching Assistant, Materials Science Department, FCT-UNL.
- 1991-1997** Assistant Professor, Materials Science Department, FCT-UNL.
- 1986-1987** Demonstrator, Materials Science Department, FCT-UNL.

6. Teaching activities

Materials Science Engineering (1st cycle)

Semiconductor Materials, 1986-1994.

Energy Conversion, 1986-1987.

Solid State Physics, 1986-1994.

Microelectronics, 1995-... (Responsible).

Materials for Energy Conversion I and II, 1995-1997.

Optoelectronics, 1997-2009 (Responsible).

Project, coordination of several students from 1996-2005 including academic and industrial final projects.

Materials Science Engineering (2nd cycle, master degree)

Introduction to Materials Science and Engineering, from 2002-2006 (Responsible)

Optoelectronics, 1997-2009 (Responsible)

Microelectronics, 1986-1995 (Responsible)

Microelectronic and Nanotechnologies Engineering (2nd cycle, master degree)

Introduction to Microelectronics and Nanotechnologies, from 2009-... (Responsible)

Physics Engineering (2nd cycle, master degree)

Topics from Materials Science, 2005-... (Responsible)

Materials Engineering (2nd cycle, national master degree involving 5 universities)

Electronic Materials, 1993-2004 (Responsible)

Electronic Materials Technologies, 1994-2004 (Responsible)

Management and Quality of Materials (2nd cycle, national master degree with Portuguese Industrial Association)

Seminars related to Optoelectronics, 1997-2002.

7. Research Supervision

In the last 13 years I supervised/co-supervised:

15 Postdoctoral researchers

21 Ph.D students

18 MSc students

8. Representative indexes – Scientific Productivity and Impact – period 1996-2010

Publications found – listed WoK ISI – **413**

Sum of Times Cited – **5,052**

H-index – **34**

Keywords: Materials Science; Transparent electronics; Thin film transistors; Metal oxide semiconductors; Thin films; Microelectronics; Nanotechnologies; Gas sensors; Biosensors

9. Patents

Submitted patents: 57

Granted patents: 7

Pending patents: 50

Registered Mark **Paper-e®**, granted in 14 countries.

10. Organization of Internacional Conferences

- R. Martins, E. Fortunato, I. Ferreira, V. Chu, J. Conde, ICANS21, 21st International Conference on Amorphous and Nanocrystalline Semiconductors, 4-9 September, Lisbon, Portugal 2005.
- E. Fortunato, J. Wager, C. Granqvist, H. Hosono, E-MRS Spring Meeting, Symposium R: Transparent Electronics: from materials to devices I, May 28 – June 2, 2006, Nice, France.
- E. Fortunato, J. Wager, G. Kiriakidis, H. Hosono, L. Park, E-MRS Spring Meeting, Symposium R: Transparent Electronics: from materials to devices II, May 28 – June 2, 2007, Strasbourg, France.
- E. Fortunato, V. Bulovic, I. Kymissis, 2009 MRS Fall Meeting, Transparent Electronics, 2009, Boston, USA.
- E. Fortunato, J. Wager, H. Hosono, E-MRS Spring Meeting, Symposium R: Transparent Electronics: from materials to devices III, 2009, Strasbourg, France.
- J. J. Berry, E. Fortunato, Y. Shigesato, J. Medvedeva, 2010 MRS Fall Meeting, Transparent Conducting Oxides, 2010, Boston, USA.
- G. Kiriakidis, A. Nathan, E. Fortunato, D. A. Keszler, K. Nomura, E-MRS 2011 Fall Meeting, September 19 - 23, 2011, Warsaw University of Technology, Poland.
- E. Fortunato, R. Martins, 8th International Thin-Film Transistor Conference, 30-31 January 2012, Lisbon – Portugal.

11. Editorial Board Memberships

Associate editor of *Physica Status Solidi Rapid Research Letters*, Wiley since 2007.

Guest Editor of *Journal of Non-Crystalline Solids* (2006-Elsevier).

Guest Editor of *Thin Solid Films* (2007, 2008-Elsevier).

Guest Editor of *Physica Status Solidi a* (2008-Wiley).

Co-Editor of *Europhysics Letters (EPL)* since 2011.

Advisory Editorial Board of *Applied Surface Science* since 2012.