Dr. Elvira Fortunato

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Place and date of birth	Almada, Portugal, 22 July 1964
Nationality	Portuguese

Education and Degrees

2005 Aggregation 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 Honors degree in Materials Science and Physics, New University of Lisbon, Portugal.

Professional Positions

1997- to present: Associate Professor of Materials Science, New University of Lisbon, Portugal.
1998- to present: Director of the Research Center of Materials (CENIMAT) from New University of Lisbon, Portugal.
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.
1995-1998 Co-Director of CEMOP-UNINOVA.

1991 to present Member of the Advisory Board of the Materials Science Department.
1996 to present Responsible of the Semiconductor Materials group from de Materials Science Department.
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.

Research Activities

Dr. Fortunato is an Associate Professor of Materials Science at the New University of Lisbon, Portugal. Prior starting the investigation on oxide semiconductor materials in 1997, she was involved in the application of large area a-Si:H to optical position sensitive detectors, where she was involved in the optoelectronic characterization and technological issues for about 10 years. Dr. Fortunato pioneered European research on thin film transistors based on oxide semiconductors, proving the capability to use oxide materials as truly semiconductors. The recent accomplishment includes the first ZnO based TFT deposited at room temperature by rf magnetron sputtering with high field effect mobility. This approach is followed now by several laboratories especially at the USA and Japan. Her current interests are in the design, fabrication, conduction transport mechanisms and characterization of amorphous multicomponent oxide based TFTs, exhibiting high mobilities. Besides this, she is particular interested in nano-TFTs and the role of the quantum size effects on the performances of these new devices.

Publications

She has about 200 papers published at Journals of the ISI.