

Giorgio Biasiol

- Born: Gorizia, Italy, December 12, 1967
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- E-mail: biasiol@iom.cnr.it
- Citizenship: Italian
- Marital status: Married, two children

Education:

- November 1998: **Ph.D. in Physics**, École Polytechnique Fédérale, Lausanne (Switzerland). Advisor: Professor E. Kapon.
Thesis title: Formation Mechanisms of Low-Dimensional Semiconductor Nanostructures Grown by OMCVD on Nonplanar Substrates.
- July 1992: **Laurea Summa cum Laude in Physics**, Università di Trieste, Trieste, Italy.
Advisors: Professor A. Franciosi.
Thesis title: Heterovalent Semiconductor Heterojunctions: Molecular Beam Epitaxy Synthesis of Ge/III-V and III-V/Ge Heterostructures.
- July 1986: **Scientific high school diploma**, Liceo Scientifico "Michelangelo Buonarroti", Monfalcone, Italy.

Awards, achievements:

- More than 140 peer-reviewed papers published in specialized reviews.
- Five invited papers and book chapters.
- More than 30 presentations in international conferences.
- Responsible for eight funded scientific projects.
- Involved in more than 20 funded scientific projects.
- Co-organizer of the first Italian Meeting on Epitaxial Growth of Semiconductors; Rome, March 10-11, 2011.
- Young Author Best Paper Award, 24th International Conference on the Physics of Semiconductors, Jerusalem (Israel), August 2-7, 1998

Professional experience:

12/2001-present: Development Scientist (permanent position), Istituto Officina dei Materiali CNR, Laboratorio TASC, Trieste (Italy)

- 8/1999-11/2001 : Post-doc Fellow, Laboratorio Nazionale TASC-INFM, Trieste (Italy)
- 9/1998-8/1999: Research Associate, Institut de Micro- et Optoélectronique, École Polytechnique Fédérale, Lausanne (Switzerland).
- 8/1994-9/1998: Graduate student-assistant, Institut de Micro- et Optoélectronique, École Polytechnique Fédérale, Lausanne (Switzerland).
- 8/1992-7/1994: Research Specialist, Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN (USA).
- 11/1990-12/1990: High School teacher, Liceo Scientifico Statale "Michelangelo Buonarroti", Monfalcone , Go (Italy).

Post-graduate courses:

- February 23-27, 1998: *10th International Winterschool on New Developments in Solid State Physics*, Mauterndorf (Austria).
- October 1996 - February 1997: *Crystal Growth and Epitaxy in Science and Technology*, 3ème Cycle de Physique de la Suisse Romande, École Polytechnique Fédérale, Lausanne (Switzerland).
- April 15-19, 1996: *Second International School on the Application of Surface Science Techniques*, Ascona (Switzerland)
- October 1994 - February 1995: *Optical Processes in Semiconductor Quantum Structures*, 3ème Cycle de Physique de la Suisse Romande, École Polytechnique Fédérale, Lausanne (Switzerland).

Rewiever and editorial experience:

- 2012: Reviewer for the Italian National Projects MIUR-FIRB "Futuro in Ricerca" 2012
- 2011: Reviewer for the Italian National Projects MIUR-FIRB "Futuro in Ricerca" 2010
- 2011: Reviewer for the Italian National Projects MIUR-PRIN 2009
- 2011 – present: Guest Editor, Materials (MDPI Publisher); special issue "Epitaxial Materials"
- 2011 – present: Advisor for the Research Grants of the Academy of Sciences for the Developing World (TWAS)
- 2011 – present: Member of the Editorial Board, Materials (MDPI Publisher)
- 2011 – present: Member of the Editorial Board, Applied Sciences (MDPI Publisher)
- 2011 – present: Member of the Editorial Board, International Journal of Physics (MDPI Publisher)
- 2010-present: Editorial Referee for the American Vacuum Society (Journal of Vacuum Science and Technology B).
- 2009: Reviewer for the Italian National Projects MIUR-FIRB "Futuro in Ricerca" 2008
- 2009-present: Editorial Referee for the American Chemical Society (The Journal of Physical Chemistry).

2006-present: Editorial Referee for the Institute of Physics (Semiconductor Science and Technology).

2005-present: Editorial Referee for Elsevier (Materials Science and Engineering B, Journal of Crystal Growth, Materials Research Bulletin, Solid State Communications).

2001-present: Editorial Referee for the American Physical Society (Physical Review B).

1998-present: Editorial Referee for the American Institute of Physics (Applied Physics Letters, Journal of Applied Physics).

Professional Experience:

- Installation and technical-scientific responsibility of a MBE system dedicated to the growth of High-Mobility (Al,Ga,In)As semiconductor structures
- Growth by Molecular Beam Epitaxy of (Al,Ga,In)As, ZnSe, CdTe, Ge and Si semiconductors.
- Growth by Organometallic Chemical Vapor Deposition of (Al,Ga,In)As alloys on planar and nonplanar GaAs and InP substrates.
- Semiconductor processing by optical photolithography and wet chemical etching, applied to nanostructure fabrication.
- Scanning Electron and Atomic Force Microscopy.
- X-ray diffraction applied to superlattices and quantum wells, and to the composition determination of semiconductor alloys.
- Ultra-high vacuum production techniques.
- X-ray and Synchrotron Radiation Photoemission Spectroscopy analysis of the chemical and electronic properties of surfaces and interfaces.
- LEED and RHEED structural analysis of surfaces.
- Auger spectroscopy for surface chemical composition analysis.
- Photoelectron microscopy for surface imaging and laterally-resolved spectroscopy.
- Hall and resistivity measurements for mobility and carrier concentration determination in semiconductors.

Teaching experience:

- 3/2004-3/2008: Teacher of the post-graduate course “Material and Devices for Optoelectronics, Spintronics and Nanophotonics”, Università di Trieste (Italy)
- 3/1996-8/1999: Assistant to the courses of General Physics I and II held by Prof. E. Kapon, École Polytechnique Fédérale, Lausanne (Switzerland).
- 10/1995-2/1996: Laboratory assistant, Para- and Ferroelectricity experiment, Travaux Pratiques Avancés de Physique, École Polytechnique Fédérale, Lausanne (Switzerland).

Languages:

- Italian (mother tongue)
- English (fluent; two-years stay in Minneapolis, MN, USA)
- French (fluent; four-years stay in Lausanne, Switzerland)