



Europass Curriculum Vitae

Claudia Wiemer Bibliometric indexes

Number of publications: 147
H index: 28 (WoS), 33 (Google Scholar)
Times cited: 2375 (WoS) 3168 (Google Scholar)

Scientific Qualifications Professore Ordinario (2019) e Dirigente di ricerca CNR (2019)

References Prof **Francis Lévy** (EPFL, Switzerland, PhD Tutor); Prof **Marco Fanciulli** (University of Milano Bicocca, Italy, group leader); Prof **Piero Pianetta** (Stanford University, U.S.A., group leader); Prof **Jean Luc Battaglia** (University of Bordeaux, France, collaborator); Prof. **Oliver Thomas** (Université de Marseille, France, collaborator); Dr **Grazia Tallarida** (IMM CNR, UOS Agrate Brianza, Italy, current group leader).

**Desired employment/
Occupational field** **Physics, Material Science, Engineering**
Thin films and coatings deposition and characterization for different applications

Work experience

Dates From October 15th 2020
Occupation position held **Director of Research at CNR**, at UOS di Agrate Brianza, IMM Institute
Dates From April 2008 till now
Occupation position held **Permanent researcher at CNR. III Level**, at UOS di Agrate Brianza IMM Institute

Main activities and responsibilities Since 2016, representative for the UOS of the characterization of materials and devices. Since 2001, in charge for the UOS of the X-ray diffraction and X-ray reflectivity laboratory. Research in the field of materials for applications in microelectronics. Fields of research: oxides and chalcogenide materials for microelectronics, deposition by atomic layer deposition and MOCVD, phase change memories, micro electron mechanical systems (MEMS), thermoelectric materials, topological insulators. Vice coordinator of COST action MP1402 HERALD (Hooking together European research in ALD), vice coordinator of project LAB4MEMSII (ENIAC call 2014), participation to different H2020 and FP7 projects. Coordinator of the European Project Chemaph (FP7), responsible for CNR of a PRIN project. Coordinator of a bilateral project between Italy and France, supported by the French-Italian University. In the context of a commercial contract with Micron, and STMicroelectronics responsible different activities related to memory devices, and MEMS. Owner of a US Patent. Participant to the international project VAMAS for the standardization of X-ray reflectivity measurements. Participant to a metrology project: IND07, Metrology for the manufacturing of thin films, Joint Research Project to the European Metrology Research Programme (EMRP) call 2010 Industry (IND) ,

Reviewer for IOP, ACS and Nature journals.

Reviewer for different European calls: FET, EURAMET, and Italian, Finnish, Dutch, Belgian, Polish and Latvian national calls. Experience as remote evaluator and also in participating to different panels.

European Projects:

LAB4MEMSII (2014-2018): call ENIAC **vicecoordinatore** and **responsible** for CNR

HERALD (Hooking together European Research in Atomic Layer Deposition), COST action MP1402 (2014-2018), **vicecoordinatore** and Italian **representative**.

BEFOREHAND: Boosting Performance of Phase Change Devices by hetero- and nano-structure material design (H2020 RI: 824957, 2018-2021) partecipante

SKYTOP: Skyrmion-Topological insulator and Weyl semimetal technology (ID: FET ID: 824123, 2018-2022) : participant

SYNAPSE: (FP7 2012-2015), SYNthesis and functionality of chalcogenide NANOstructures for Phase change memories, participant

CHEMAPH (2006-2008): **coordinator** of the whole project

FOREMOST (2006-2009): **responsible** of CNR activity

REALISE (2006-2009): participant

VAMAS (2005-2009): **responsabile** for CNR

GOSSAMER (2008-2011): participant

EMMA (2006-2008): participant

ET4US (FP6 IST-STREP 2004-2006) Epitaxial technology for ultimate device scaling , participant

INVEST (IST STREP FP5 2001-2004) Integration of very high-k dielectrics with silicon CMOS technology participant

ESQUI -(FP5 200-2003) X-ray expert system for electronic films quality improvement, participant

National Projects:

CYBER-SORT: project CNR_Lombardy region n° 3866 del 17/07/2015 **Responsabile** IMM.

SPATIALS3: project CNR Lombardy region, **Responsabile** IMM e **wp3** (materials for packaging)01/02/2020-30/06/2022

PRIN 2008

Name and address of the employer **UOS di Agrate Brianza, IMM, CNR**, via C. Olivetti 2 20864 Agrate Brianza (MB) Italy

Type of business or sector	Coordination of the research in the field of phase change materials, collaboration with the industrial partners Stmicroelectronics and Micron. Responsible of the characterization of oxide and chalcogenide thin layers for applications in microelectronics. Participation and coordination of National and European projects. Supervision of master and Ph D students. Study of thin films and nanostructures for microelectronic applications. Academic research with strong interaction with industry.
Dates	February 2003-April 2008
Occupation position held	Temporary researcher at CNR. III Level , at UOS di Agrate Brianza IMM Institute, in the past this UOS was the National laboratory MDM, INFM (National Institute for the Physics of Matter).
Main activities and responsibilities	In charge for the UOS of X-ray diffraction and X-ray reflectivity analyses. Research in the field of materials for microelectronics. Responsible in the framework of the commercial contract with Micron of the characterization activities on high dielectric constant oxides. Involved in several European projects on the 5 th and 6 th framework. Coordinator of the European project Chemaph (FP7). Development of novel chalcogenide layers for phase change memory applications by MOCVD technique.
Name and address of the employer	UOS di Agrate Brianza, IMM, CNR , via C. Olivetti 2 20864 Agrate Brianza (MB) Italy
Type of business or sector	Research in the field of materials for microelectronics, specifically in the sector of thin films and their structural characterization by X-ray diffraction and reflectivity.
Dates	September 2000-February 2003
Occupation position held	Assegnista di ricerca (Post doctoral contract) at Laboratorio MDM dell'INFM , now UOS di Agrate Brianza dell'Istituto IMM
Main activities and responsibilities	Responsible for X-ray characterization of materials for microelectronics, X-ray diffraction and X-ray reflectivity.
Name and address of the employer	CNR, UOS di Agrate Brianza, IMM, via C. Olivetti 2 20864 Agrate Brianza (MB) Italy
Type of business or sector	Research in the field of transition metal oxides for gate dielectrics. X-ray characterization. Development of an especially designed X-ray tool for materials for microelectronics ESQUI (FP4).
Date	December 1997-December 1998
Lavoro o posizione	Visiting Scientist at Stanford University, Stanford, California, USA.
	Work at a beamline at Stanford Synchrotron radiation laboratory. Total reflection x-ray fluorescence characterization of substrates and thin films for the microelectronic industry. Stanford University, 450 Serra Mall, Stanford, CA 94305 USA.
	Industrial research

Design of innovative X-ray facilities

In the framework of CHEMAPH, project, in 2007, I've developed, together with UNiversity of Trento, an instrument for the **simultaneous analysis of X-ray fluorescence in geometry of total external reflection and X-ray reflectivity**. The instrument allows the simultaneous acquisition of both X-ray reflectivity and fluorescence and thanks to ad hoc designed software (<http://www.ing.unitn.it/~maud/maud/maudWebStart.html>), it is possible to model the depth profiling of the chemical composition

In the framework of the european project ESQUI, (2000-2003), I participated as a post doc to the development of an **innovative X-ray diffraction system especially designed for the analysis of thin films**. The system can mount 8" wafers. The instrument is equipped with a Goebel mirror (at that time it was a very innovative monochromator) that allows to have a very intense and parallel beam. The instrument has a 4 circle goniometer, a scintillator and a position sensitive detector (curved gas detector). The specular X-ray reflectivity is acquired with the scintillator, whereas the position sensitive detector allows to acquire on 120 °.

In the framework of a PRIN project, (2010-2012), I've improved this instrument with a **heating system for the acquisition of diffraction and reflectivity spectra as a function of temperature**. In particular, thanks to the position sensitive detector, the acquisition of diffraction spectra is very effective. This system can go up to 1000 °C in N₂ atmosphere, was especially designed together with Anton Paar in order to be able to work with two domes up to 600 °C, so that to be able to access, if necessary all the 2theta range (up to 600 °C) by changing the dome.

X-ray proposals at Synchrotrons

Advanced research has been pursued by experiments at ESRF. One additional beam time at Elettra has been recently won. Experiments have been conducted in order to go beyond what was done in the laboratory and were (almost) always successful experiments.

Proposal SSSI mat science beamline: December 5-12 2017 THz experiment on topological insulators

Proposal MA-3365 beamtime April 20-25 2017 Nano Laue analysis of chalcogenide nanowires

Proposal MA-2467 beamtime March 4-8 2015 Structural analysis of ultrathin Al₂O₃ annealed at high temperatures material

Proposal MA-2234 beamtime March 3-18 2014 structural analysis of ultrathin films of Er-HfO₂

Proposal MA-1208 beamtime dal June 14 al 21 2011 exafs at Er 3+ threshold in Er-HfO₂ thin films

Proposal MA-1203 beamtime March 02-07 2011 Structural (XRD) analysis of ultrathin di Er-HfO₂

Proposal MA-1052 beamtime April 03-07 2010 Structural analysis of ultrathin La-ZrO₂

Responsibilities

Machine maintenance: alignment, change of tube, optimization, change of parts, beam optimization of the two hard X-ray systems at the UOS

Training of new users on X-ray instrumentation (for a total of 20 people), responsible of different contracts with industry for the characterization of material and thin films

Teaching: to undergraduates at EPFL during PhD

Tutoring of national and international students:

2016-Studente di Laurea, visiting scholar, Tom Chaloin, Université de Grenoble, terzo anno, 3 months stage in 2016, 2016-PhD Thesis, **Maria Berdova** di Aalto University, Helsinki, Finland, visiting scholar at IMM-CNR from 01-10-2015 to 01-04-2016,

2015-PhD Thesis **Tan Nguyen**, dottorato in cotutela with Università di Bordeaux, within a project of 'Università Italo-francese (Progetto VINCI) between Università di Bordeaux and Università di Milano Bicocca Dissertation: 10/07/2015, per partecipazione a Jury de Thèse

2012-PhD Thesis di **Andrea Cappella**, Presented at Université de Bordeaux, École Doctorale Des Sciences Physiques Et De L'ingénieur Pour Obtenir Le Grade De Docteur Spécialité: Mécanique & Énergétique. Thesis title: "*Caractérisation Thermique À Haute Température De Couches Minces Pour Mémoires À Changement De Phase Depuis L'état Solide Jusqu'à L'état Liquide*", co-tutored PhD and participation to the exam

2011-Studente di Laurea, visiting scholar, **Orianne Schweitzer** Université de Grenoble, third year, 3 months stage

2007-2009-Studente di dottorato **Luca Lamagna**, Università di Milano Bicocca, relatore interno Prof. Marco Fanciulli, titolo della tesi: *Atomic Layer deposition and characterization of rare earth oxides for innovation in microelectronics*

2007-Studente di Laurea **Roberto Fallica**: studente di Ingegneria Elettronica del Politecnico di Milano

Tipologia di tesi: tesi di laurea magistrale (vecchio ordinamento) in Ingegneria Elettronica, anno 2007, titolo tesi: *Caratterizzazione elettrica e termica di materiali a cambiamento di fase per memorie non volatili.*

Technical skills

Fitting of X-ray reflectivity, specular and off specular, fitting of X-ray diffraction patterns by Rietveld refinement, texture analysis analysis of Laue patterns. Software Maud, Bede, and software available at the synchrotron. Simulation of crystallographic structures by software Carine.

Physical deposition by magnetron sputtering or e beam evaporation of thin films and coatings, **Chemical deposition** by atomic layer deposition and metalorganic chemical vapour deposition.

X-ray machines maintenance: change of tube, beam optimization, alignment, replacement of parts

Prizes

R.F. Bunshah award of Vacuum metallurgy division dell'American Vacuum Society, 30/04/1994 Best paper at:
International conference on metallurgical coatings and thin films (ICMCTF), Sandiego, April 1994

Education and training

Dates November 1992-August 1996

Title **Ph. D. in Physique Appliquée** (Ph D in Applied Physics)

Acquired knowledge Deposition by magnetron sputtering, structural and mechanical characterization of hard transition metal nitrides thin films.

School Ecole Polytechnique Fédérale de Lausanne, Lausanne (CH)

International or national level The publication level was ranked in the first quarter of Ph D students

Dates Ottobre 1988-Agosto 1992

Title **Laurea in Fisica, 110/110 e lode, università degli studi di Milano (Italy)**

Invited contributions at International Conferences and organization of Conferences 7 Symposia

Invited contributions:

- 11-C. Wiemer, Optical and Structural Properties of Low Temperature HfO₂ for Micromirror Applications, China Atomic Layer Deposition Conference, Shenzhen, October 2018
- 10-C. Wiemer, Advanced protective coatings by low temperature atomic layer deposition of HfO₂ on Al surfaces for micro-mirror applications, Thematic workshop at ESSDERC-ESSCIRC 2016, Lausanne, 2016
- 9-C. Wiemer, Advantages and disadvantages, comparison with other thin film deposition techniques, e: Relationships between process parameters, structural and electrical properties in ALD oxides alla: International summer school "Atomic Layer Deposition: Method and Applications, Brescia, 10-15 Luglio 2015
- 8-C. Wiemer, Hf and Zr -based very high dielectric constant oxides for logic and memory applications, E-MRS 2012, Strasbourg
- 7-C. Wiemer, Phase change materials for random access memories: deposition, characterization and performance, AVS 2010, Albuquerque, October 19th, 2010.
- 6-C. Wiemer, Material perspectives for phase change memories: the role of chemical composition, deposition method, and interfaces on the thermal properties of the chalcogenide material and of its interfaces, MRS 2010, Spring Meeting, San Francisco, April 2010
- 5-C. Wiemer, Chemical vapor deposition of chalcogenide materials for next generation phase change memory devices, International Workshop on Emerging Non-Volatile Memories, Genova, July 31st 2009
- 4-C. Wiemer, Chemical vapor deposition of chalcogenide materials for next generation phase change memory devices, Innovative Mass Storage Technologies Workshop, Leuven, 26-29 November 2008
- 3-C. Wiemer, Chemical Vapor Deposition of Chalcogenide Materials for Phase Change Memories, International Workshop on Emerging Non-Volatile Memories, Munchen, September 14th 2007
- 2-C. Wiemer, Probing interfaces by x-ray reflectivity, a real case, Workshop tematico: Advances in thin films characterization by X-ray, September 11-13 2002, Genova, Italia
- 1- C. Wiemer, invited presentation at International conference on metallurgical coatings and thin films, ICMCTF, AVS, San Diego (CA), 1997

Organization of symposia and conferences:

- 2018 Organization Workshop Atomic layer deposition for Back-end of the line processes II, within the COST action HERALD (see projects),
- 2018 Organization international conference MAM: Materials for advanced metallization, Milano, March 2018
- 2017 Organization simposio Q: Synchrotron Radiation and Atomic Layer Deposition for Advanced Materials, a E-MRS fall meeting, Warsaw, 18-21/09/2017
- 2016 Organization Workshop Atomic layer deposition for Back-end of the line processes, withn the COST action HERALD, Bruxelles (March 20-23 2016)
- Since 2013 Member of the scientific committee of MAM, Materials for advanced metallizations, years: 2013 2014 2015 2016 2017 2018
- 2008 Organization simposio H Materials and emerging technologies for non-volatile-memory devices a E-MRS 2008, Strasbourg, 26/05/2008,

Personal Skills

Mother Tongue: Italian

Other languages:

	Understanding		Speaking		Writing
	listening	reading	spoken interaction	spoken production	
French	C2	C2	C2	C2	C2
English	C2	C2	C1	C2	C1
German	A2	A2	A2	A2	A1

A1/A2: Basic User; B1/B2: Independent User C1/C2: Proficient User

Communication skills: I can work in team, either personal or remotely. I can communicate with different kind of professional entities like industry, academic or funding agencies. I can work with people of different levels, including students, early carriers or more experienced people. Experience with phone conference meetings and other form of remote meetings including skype and webex.

Managerial skills: I was coordinating different kind of projects (European and National). Ability to make collaborators committed on a common goal. Organization of conferences (see previous section) with close to 200 attendees

Computer skills: Competent with most of the microsoft based softwares. Basic knowledge of Matlab.

Driving licence: Italian Driving licence B.

Publication list:

117	Emanuele Longo, Roberto Mantovan, Raimondo Cecchini, Michael D. Overbeek, Massimo Longo, Giovanna Trevisi, Laura Lazzarini, Graziella Tallarida, Marco Fanciulli, Charles H. Winter, Claudia Wiemer , ALD growth of ultra-thin Co layers on the topological insulator Sb ₂ Te ₃ , <i>NANO RESEARCH</i> , ISSN: 1998-0124, doi: s12274-020-2657-4, in press (2020)
116	Luca LAMAGNA ; Stefano LOSA ; Silvia ROSSINI ; Federico VERCESI; Elena CIANCI; Graziella TALLARIDA ; Claudia WIEMER , <i>Micromechanical mirror structure with improved mechanical and reflectivity features and corresponding manufacturing process</i> , US Patent n°: US 2019 / 0219816 A1 (2019)
115	Raimondo Cecchini, Raja SR Gajjala, Christian Martella, Claudia Wiemer , Alessio Lamperti, Lucia Nasi, Laura Lazzarini, Luca G Nobili, Massimo Longo, <i>High-Density Sb₂Te₃ Nanopillars Arrays by Templated, Bottom-Up MOCVD Growth</i> , Small [], Pages: 1901743 (2019)
114	E Longo, C Wiemer, R Cecchini, M Longo, A Lamperti, A Khanas, A Zenkevich, M Fanciulli, R Mantovan <i>Chemical, structural and magnetic properties of the Fe/Sb₂Te₃ interface</i> <i>Journal of Magnetism and Magnetic Materials</i> Volume: 474 Pages: 632-636 (2019)
113	R Cecchini, S Selmo, C Wiemer, M Fanciulli, E Rotunno, L Lazzarini, M Rigato, D Pogany, A Lugstein, M Longo <i>In-doped Sb nanowires grown by MOCVD for high speed phase change memories</i> . <i>Micro and Nano Engineering</i> Volume: 2 Pages: 117-121 (2019)
112	E Cianci, A Lamperti, G Tallarida, M Zanucoli, C Fiegna, L Lamagna, S Losa, S Rossini, F Vercesi, D Gatti, C Wiemer <i>Advanced protective coatings for reflectivity enhancement by low temperature atomic layer deposition of HfO₂ on Al surfaces for micromirror applications</i> <i>Sensors and Actuators A: Physical</i> [Elsevier], [2018]
111	Sabina Spiga, Francesco Driussi, Gabriele Congedo, Claudia Wiemer , Alessio Lamperti, Elena Cianci <i>Sub-1-nm equivalent oxide thickness Al-HfO₂ trapping layer with excellent thermal stability and retention for non-volatile memory</i> <i>ACS Applied Nano Materials</i> [American Chemical Society], è2018]
110	Raimondo Cecchini, Roberto Mantovan, Claudia Wiemer , Lucia Nasi, Laura Lazzarini, Massimo Longo <i>Weak Antilocalization in Granular Sb₂Te₃ Thin Films Deposited by MOCVD</i> <i>Physica status solidi (RRL)-Rapid Research Letters</i> [WILEY? VCH Verlag Berlin GmbH], Volume: 12 Issue: 8 Pages: 1800155 [2018]
109	Raimondo Cecchini, Simone Selmo, Claudia Wiemer , Enzo Rotunno, Laura Lazzarini, Marta De Luca, Ilaria Zardo, Massimo Longo <i>Single-step Au-catalysed synthesis and microstructural characterization of core-shell Ge/In-Te nanowires by MOCVD</i> <i>Materials Research Letters</i> [Taylor & Francis], Volume: 6 Issue: 1 Pages: 29-35 [2018]
108	Esko Ahvenniemi et al, including C. Wiemer , Review Article: <i>Recommended reading list of early publications on atomic layer deposition—Outcome of the “Virtual Project on the History of ALD”</i> , <i>Journal of Vacuum Science and Technology A</i> , 35 (2017) 010801
107	S Selmo, R Cecchini, S Cecchi, C Wiemer , M Fanciulli, E Rotunno, L Lazzarini, M Rigato, D Pogany, A Lugstein, M Longo, <i>Low power phase change memory switching of ultra-thin In₃Sb₁Te₂ nanowires</i> , <i>Applied Physics Letters</i> , Volume: 109 Issue: 21 Pages: 213103 (2016)
106	Maria Berdova, Xuwen Liu, Claudia Wiemer , Alessio Lamperti, Grazia Tallarida, Elena Cianci, Marco Fanciulli, Sami Franssila, <i>Hardness, elastic modulus, and wear resistance of hafnium oxide-based films grown by atomic layer deposition</i> , <i>Journal of Vacuum Science & Technology A</i> , Volume: 34 Issue: 5 Pages: 051510 (2016)
105	J-L Battaglia, A Kusiak, C Gaborieau, Y Anguy, HT Nguyen, C Wiemer , R Fallica, D Campi, M Bernasconi, M Longo, <i>Evolution of</i>

	thermal conductivity of In3Sbβ Teγ thin films up to 550° C , Physica status solidi (RRL)-Rapid Research Letters, 10, No. 7, 544-548 (2016)
104	Maria Berdova, Claudia Wiemer , Alessio Lamperti, Grazia Tallarida, Elena Cianci, Luca Lamagna, Stefano Losa, Silvia Rossini, Roberto Somaschini, Salvatore Gioveni, Marco Fanciulli, Sami Franssila, Protective coatings of hafnium dioxide by atomic layer deposition for microelectromechanical systems applications , Applied Surface Science, Volume: 368 Pages: 470-476 (2016)
103	S Vangelista, A Lamperti, C Wiemer , M Fanciulli, R Mantovan, Atomic Layer Deposition of hexagonal ErFeO 3 thin films on SiO 2/Si , Thin Solid Films, Volume: 604 Pages: 18-22 (2016)
102	S Selmo, S Cecchi, R Cecchini, C Wiemer , M Fanciulli, E Rotunno, L Lazzarini, M Longo, MOCVD growth and structural characterization of In-Sb-Te nanowires , Physica Status Solidi (a), Volume: 213 Issue: 2 Pages: 335-338 (2016)
101	Enzo Rotunno, Massimo Longo, Claudia Wiemer , Roberto Fallica, Davide Campi, Marco Bernasconi, Andrew R Lupini, Stephen J Pennycook, Laura Lazzarini, A Novel Sb2Te3 Polymorph Stable at the Nanoscale , Chemistry of Materials, Volume: 27 Issue: 12 Pages: 4368-4373 (2015)
100	Alessio Lamperti, Alessandro Molle, Elena Cianci, Claudia Wiemer , S Spiga, M Fanciulli, Effect on Al: MO 2/In 0.53 Ga 0.47 As interface (M= Hf, Zr) of trimethyl-aluminum pre-treatment during atomic layer deposition Thin Solid Films, Volume: 563 Pages: 44-49 (2014)
99	G Seguini, J Llamoya Curi, S Spiga, G Tallarida, C Wiemer , M Perego, "Solid-state dewetting of ultra-thin Au films on SiO2 and HfO2", Nanotechnology 25, 495603 (2014)
98	Jean-Luc Battaglia, Andrzej Kusiak, Abdelhak Saci, Roberto Fallica, Alessio Lamperti, Claudia Wiemer , "Effect of a thin Ti interfacial layer on the thermal resistance of Ge2Sb2Te5-TiN stack", Applied Physics Letters 105, 121903 (2014)
97	Roberto Fallica, Claudia Wiemer , Toni Stoycheva, Elena Cianci, Massimo Longo, Huu Tan Nguyen, Andrzej Kusiak, Andrzej Kusiak, "Thermal properties of In-Sb-Te films and interfaces for phase change memory devices", Microelectronic Engineering 120, 3-8 (2014)
96	R. Mantovan, S. Vangelista, C. Wiemer , A. Lamperti, G. Tallarida, E. Chikoidze, Y. Dumont, M. Fanciulli, "Synthesis of multiferroic Er-Fe-O thin films by atomic layer and chemical vapor deposition", Journal of Applied Physics 115, 17D907-3 (2014)
95	E. Cianci, A. Molle, A. Lamperti, C. Wiemer , S. Spiga, M. Fanciulli, "Phase Stabilization of Al:HfO2 Grown on InxGa1-xAs Substrates (x = 0, 0.15, 0.53) via Trimethylaluminum-Based Atomic Layer Deposition", ACS Applied Materials and Interfaces . 6, 3455-3461 (2014)
94	G. Seguini, E. Cianci, C. Wiemer , D. Saynova, J. A. M. van Roosmalen, M. Perego, "Si surface passivation by Al2O3 thin films deposited using a low thermal budget atomic layer deposition process", Applied Physics Letters 102, 131603 (2013)
93	G. Congedo, C. Wiemer , A. Lamperti, E. Cianci, A. Molle, F. Volpe, S. Spiga, "Atomic layer-deposited Al-HfO2/SiO2 bi-layers towards 3D charge trapping non-volatile memory", Thin Solid Films 533, 9-14 (2013)
92	T. Stoycheva, M. Longo, R. Fallica, F. Volpe, C. Wiemer , "Growth study and characterization of In-Sb-Te compounds deposited onto different substrates by metal-organic chemical vapour deposition", Thin Solid Films 533, 66-69 (2013)
91	J.-L. Battaglia, V. Schick, C. Rossignol, A. Kusiak, I. Aubert, A. Lamperti, C. Wiemer , "Thermal resistance at the Al-Ge2Sb2Te5 interface", Applied Physics Letters 102, 181907 (2013)
90	A. Cappella, J.-L. Battaglia, V. Schick, A. Kusiak, A. Lamperti, C. Wiemer , B. Hay, "High temperature thermal conductivity of amorphous Al2O3 thin films grown by low temperature ALD", Advanced engineering materials 15, 1046-1050 (2013)
89	A. Molle, E. Cianci, A. Lamperti, C. Wiemer , S. Spiga, M. Fanciulli, "A Viable Route to Enhance Permittivity of Gate Dielectrics on In0.53Ga0.47As(001): Trimethylaluminum-Based Atomic Layer Deposition of MeO2 (Me = Zr, Hf)", ECS Journal of Solid State Science and Technology 2, P395 (2013)
88	R. Fallica, T. Stoycheva, C. Wiemer , M. Longo, "Structural and electrical analysis of In-Sb-Te-based PCM cells", Phys. Status Solidi RRL 1-5, (2013)
87	M Longo, T Stoycheva, R Fallica, C Wiemer, L Lazzarini, E Rotunno, Au-catalyzed synthesis and characterisation of phase change Ge-doped Sb-Te nanowires by MOCVD , Journal of Crystal Growth, Volume: 370 Pages: 323-327 (2013)
86	R. Fallica, E. Varesi, L. Fumagalli, S. Spadoni, M. Longo, C. Wiemer , "Effect of nitrogen doping on the thermal conductivity of GeTe thin films", Phys. Status Solidi RRL 1-5, 1107-1111 (2013)
85	Roberto Fallica, Flavio Volpe, Massimo Longo, Claudia Wiemer , Olivier Salicio, Adulfas Abrutis, "Electronic properties of crystalline Ge(1-x)Sb(x)Te(y) thin films", Applied Physics Letters 101, 102105 (2012)
84	S. Spiga, R. Rao, L. Lamagna, C. Wiemer , G. Congedo, A. Lamperti, A. Molle, M. Fanciulli, F. Palma, F. Irrera, "Structural and electrical properties of atomic layer deposited Al-doped ZrO2 films and of the interface with TaN electrode", Journal of Applied Physics 112, 014107 (2012)
83	C. Wiemer , L. Lamagna, M. Fanciulli, "Atomic layer deposition of rare-earth-based binary and ternary oxides for microelectronic applications", Semiconductor Science and Technology 27, 074013 (2012)
82	E. Ravizza, S. Spadoni, R. Piagge, P. Comite, C. Wiemer , "XPS composition study of stacked Si oxide/Si nitride/Si oxide nano-layers", Surface and Interface Analysis 44, 1209-1213 (2012)
81	L. Lamagna, A. Molle, C. Wiemer , S. Spiga, C. Grazianetti, G. Congedo, M. Fanciulli, "Atomic Layer Deposition of Al-Doped ZrO2 Thin Films as Gate Dielectric for In0.53Ga0.47As", J. Electrochem. Soc. 159, H220-H224 (2012)
80	Luca Lamagna, Claudia Wiemer , Michele Perego, Sabina Spiga, Jesús Rodríguez, David Santiago Coll, Maria Elena Grillo, Sylwia Klejna, Simon D. Elliott, "Mechanisms for Substrate-Enhanced Growth during the Early Stages 2 of Atomic Layer Deposition of Alumina onto Silicon Nitride Surfaces", Chemistry of Materials 24, 1080-1090 (2012)
79	Massimo Longo, Roberto Fallica, Claudia Wiemer , Olivier Salicio, Marco Fanciulli, Enzo Rotunno, Laura Lazzarini, "Metal Organic Chemical Vapor Deposition of Phase Change Ge1Sb2Te4 Nanowires", Nano Letters 12, 1509-1515 (2012)

78	Jean-Luc Battaglia, Vincent Schick, Andrzej Kusiak, Clément Rossignol, Claudia Wiemer , Alessio Lamperti , "Identification of the temperature dependent thermal boundary resistance at a metal-phase change material" , Inverse Problems in Science and Engineering 20, 941-950 (2012)
77	C. Wiemer , A. Debernardi, A. Lamperti, A. Molle, O. Salicio, L. Lamagna, M. Fanciulli , "Influence of lattice parameters on the dielectric constant of tetragonal ZrO2 and La-doped ZrO2 crystals in thin films deposited by atomic layer deposition on Ge(001)" , Applied Physics Letters 99, 232907 (2011)
76	Alessandro Molle, Luca Lamagna, Claudia Wiemer , Sabina Spiga, Marco Fanciulli, Clement Merckling, Guy Brammertz, Matty Caymax , "Improved Performance of In0.53Ga0.47As-Based Metal-Oxide-Semiconductor Capacitors with Al:ZrO2 Gate Dielectric Grown by Atomic Layer Deposition" , Applied Physics Express 4, 094103 (2011)
75	W. Gawelda, J. Siegel, C. N. Afonso, V. Plausinaitiene, A. Abrutis, C. Wiemer , "Dynamics of laser-induced phase switching in GeTe films" , Journal of Applied Physics 109, 123102 (2011)
74	C. Wiemer , A. Lamperti, L. Lamagna, O. Salicio, A. Molle, M. Fanciulli , "Detection of the Tetragonal Phase in Atomic Layer Deposited La-Doped ZrO2 Thin Films on Germanium" , Journal of the Electrochemical Society 158(8), G194-G198 (2011)
73	S. Schamm-Chardon, P. E. Coulon, L. Lamagna, C. Wiemer , S. Baldovino, M. Fanciulli, Combining HRTEM-EELS nano-analysis with capacitance-voltage measurements to evaluate high-k thin films deposited on Si and Ge as candidate for future gate dielectrics, Microelectronic Engineering, 88, 419 - 422 (2011) .
72	C. Wiemer , S. Baldovino, L. Lamagna, M. Perego, S. Schamm-Chardon, M. Fanciulli, Structural and electrical properties of Er-doped HfO2 and of its interface with Ge (001) , Microelectronic Engineering, 88, 415 - 418 (2011) .
71	M. Longo, C. Wiemer , O. Salicio, M. Fanciulli, L. Lazzarini, E. Rotunno , "Au-catalyzed self assembly of GeTe nanowires by MOCVD" , J. Cryst. Growth 315, 152-156 (2011)
70	J. Siegel, D. Puerto, J. Solis, F. J. Garcia de Abajo, C. N. Afonso, M. Longo, C. Wiemer , M. Fanciulli, P. Kuhler, M. Mosbacher, P. Leiderer, Ultraviolet optical near-fields of microspheres imprinted in phase change films, Applied Physics Letters, 96, 193108 (2010) .
69	C. Wiemer , L. Lamagna, S. Baldovino, M. Perego, S. Schamm-Chardon, P. E. Coulon, O. Salicio, G. Congedo, S. Spiga, M. Fanciulli, Dielectric properties of Er-doped HfO2 (Er 15%) grown by atomic layer deposition for high-k gate stacks, Applied Physics Letters, 96, 182901 (2010) .
68	L. Lamagna, C. Wiemer , M. Perego, S. N. Volkos, S. Baldovino, D. Tsoutsou, S. Schamm-Schardon, P.E. Coulon, M. Fanciulli, O3-based atomic layer deposition of hexagonal La2O3 films on Si(100) and Ge(100) substrates, Journal of Applied Physics, 108, 084108 (2010) .
67	J.-L. Battaglia, A. Kusiak, V. Schick, A. Cappella, C. Wiemer , M. Longo, E. Varesi, Thermal characterization of the SiO2-Ge2Sb2Te5 interface from room temperature up to 400 °C, Journal of Applied Physics, 107, 044314 1-6 (2010) .
66	M. Perego, G. Seguini, C. Wiemer , M. Fanciulli, P.E. Coulon, C. Bonafos, Si nanocrystal synthesis in HfO2/SiO/HfO2 multilayer structures, Nanotechnology, 21, 055606 (2010) .
65	M. Alessandri, A. Del Vitto, R. Piagge, A. Sebastiani, C. Scozzari, C. Wiemer , L. Lamagna, M. Perego, G. Ghidini, M. Fanciulli, Rare earth-based high-k materials for non-volatile memory applications, Microelectronic Engineering, 87, 290-293 (2010) .
64	L. Lamagna, C. Wiemer , S. Baldovino, A. Molle, M. Perego, S. Schamm-Chardon, P. E. Coulon, and M. Fanciulli, Thermally induced permittivity enhancement in La-doped ZrO2 grown by atomic layer deposition on Ge (100), Applied Physics Letters 95, 122902 (2009)
63	Garros X., Casse M., Rafik M., Fenouillet-Beranger C., Reimbold G., Martin F., Wiemer C. , Boulanger F., <i>Process dependence of BTI reliability in advanced HK MG stacks</i> , Microelectronics Reliability 49, 9-11 (2009)
62	Roberto Fallica, Jean-Luc Battaglia, Simone Cocco, Cristiano Monguzzi, Andrew Teren, Claudia Wiemer , Enrico Varesi, Raimondo Cecchini, Andrea Gotti, Marco Fanciulli, <i>Thermal and Electrical Characterization of Materials for Phase-Change Memory Cells</i> , Journal of Chemical and Engineering Data , 54, 1698-1701 (2009) .
61	C. Gaumer, E. Martinez, S. Lhostis, C. Wiemer , M. Perego, V. Loup, D. Lafond, J.-M. Fabbri, <i>Chemical and Structural Properties of a TaN-HfO2 Gate Stack Processed Using Atomic Vapor Deposition</i> , Journal of the electrochemical society, 156 (7), G78-G83 (2009) .
60	A. Adulfas, V. Plausinaitiene, M. Skapas, C. Wiemer , W. Gawelda, J. Siegel , S. Rushworth, <i>Hot-wire chemical vapor growth and characterization of crystalline GeTe films</i> , Journal of Crystal Growth, 311, 362-367 (2009) .
59	X. L. Li, D. Tsoutsou, G. Scarel, C. Wiemer , S. C. Capelli, S. N. Volkos, L. Lamagna, M. Fanciulli, <i>Chemical and structural properties of atomic layer deposited La2O3 films capped with a thin Al2O3 layer</i> , J. Vac. Sci. Technol. A, 27, L1-L7 (2009) .
58	R. Mantovan, C. Wiemer , A. Lamperti, M. Georgieva, M. Fanciulli, A. Goikhman, N. Barantsev, Yu. Lebedinskii, A. Zenkevich, <i>Mössbauer spectroscopy study of interfaces for spintronics</i> , Hyperfine Interactions, 191, 41-46 (2009)
57	R. Mantovan, C. Wiemer , A. Lamperti, A. Zenkevich, Yu. Lebedinski, M. Fanciulli, <i>Dehydrogenation at the Fe/Lu2O3 interface upon rapid thermal annealing</i> , Journal of Magnetism and Magnetic Materials, 321, 2350-2353 (2009) .
56	O. Salicio, C. Wiemer , M. Fanciulli, W. Gawelda, J. Siegel, C. N. Afonso, V. Plausinaitiene, A. Abrutis, <i>Effect of pulsed laser irradiation on the structure of GeTe films deposited by MOCVD - A Raman spectroscopy study</i> , Journal of Applied Physics, 105 , 033520 1-6 (2009) .
55	S. Schamm, P.E. Coulon, S. Miao, S.N. Volkos, H.L. Lu, L. Lamagna, C. Wiemer , D. Tsoutsou, G. Scarel, M. Fanciulli, <i>Chemical/Structural Nanocharacterization And Electrical Properties of ALD-grown La2O3/Si Interfaces For Advanced Gate Stacks</i> , Journal of The Electrochemical Society 156 (1), H1-H6 (2009)
54	R.J. Matyi, L.E. Depero, E. Bontempi, P. Colombi, A. Gibaud, M. Jergel, M. Krumrey, T.A. Lafford, A. Lamperti, M. Meduna, A. Van der Lee, C. Wiemer , <i>The international VAMAS project on X-ray reflectivity measurements for evaluation of thin films and multilayers — Preliminary results from the second round-robin</i> , Thin Solid Films, 516, 7962-7966 (2008) .
53	H.L. Lu, G. Scarel, C. Wiemer , M. Perego, S. Spiga, M. Fanciulli, G. Pavia, <i>Atomic Layer Deposition of NiO Films on Si(100) Using Cyclopentadienyl-Type Compounds and Ozone as Precursors</i> , Journal of The Electrochemical Society, 155, H807-H811 (2008) .

52	A. Abrutis, V. Plausinaitiene, M. Skapas, C. Wiemer , M. Longo, O. Salicio, A. Pirovano, J. Siegel, W. Gawelda, S. Rushworth, C. Giesen, <i>Chemical vapor deposition of chalcogenide materials for phase-change memories</i> , Microelectronic Engineering 85, 2338-2341 (2008)
51	S. Spiga, A. Lamperti, C. Wiemer , M. Perego, E. Cianci, G. Tallarida, H. L. Lu, M. Alia, F. G. Volpe, M. Fanciulli, <i>Resistance switching in amorphous and crystalline binary oxides grown by electron beam and atomic layer deposition</i> , Microelectronic Engineering 85, 2414-2419 (2008)
50	M. Longo, O. Salicio, C. Wiemer , R. Fallica, A. Molle, M. Fanciulli, C. Giesen, B. Seitzinger, P.K. Baumann, M. Heuken, S. Rushworth, <i>Growth study of GexSbyTez deposited by MOCVD under nitrogen for non-volatile memory applications</i> , Journal of Crystal Growth 310, 5053-5057 (2008)
49	Molle A., Spiga S., Bhuiyan MNK., Tallarida G., Perego M., Wiemer C. , Fanciulli M., <i>Atomic oxygen-assisted molecular beam deposition of Gd2O3 films for ultra-scaled Ge-based electronic devices</i> , Materials Science in Semiconductor Processing 11, 236-240 (2008)
48	A. Debernardi, C. Wiemer , M. Fanciulli, <i>Epitaxial anatase HfO2 on high-mobility substrate for ultra-scaled CMOS devices</i> , Mat. Sci. Semicon. Process. 11, 241-244 (2008)
47	A. Lamperti, S. Spiga, H.L. Lu, C. Wiemer , M. Perego, E. Cianci, M. Alia, M. Fanciulli, <i>Study of the interfaces in resistive switching NiO thin films deposited by both ALD and e-beam coupled with different electrodes (Si, Ni, Pt, W, TiN)</i> , Microelectronic Engineering 85, 2425-2429 (2008)
46	Adulfas Abrutis, Valentina Plausinaitiene, Martynas Skapas, Claudia Wiemer , Olivier Salicio, Agostino Pirovano, Enrico Varesi, Simon Rushworth, Wojciech Gawelda, Jan Siegel, <i>Hot-Wire Chemical Vapor Deposition of Chalcogenide Materials for Phase Change Memory Applications</i> , Chemistry of Materials, 20, 3557-3559 (2008)
45	P. Colombi, D.K. Agnihotri, V.E. Asadchikov, E. Bontempi, D. K. Bowen, C.-H Chang, L. E. Depero, M. Farnworth, T. Fujimoto, A. Gibaud, M. Jergel, M. Krumrey, T. A. Lafford, A. Lamperti, T. Ma, R. J. Matyi, M. Meduna, S. Milita, K. Sakurai, L. Shabel'nikov, A. Ulyanekov, A. Van der Lee, C. Wiemer , <i>Reproducibility in X-ray reflectometry: results from the first reflectivity round robin experiment</i> , Journal of Applied Crystallography, 41, 143-152 (2008)
44	J. Siegel, W. Gawelda, D. Puerto, C. Dorronsoro, J. Solis, C.N. Afonso, R. Bez, A. Pirovano, C. Wiemer , <i>Amorphization dynamics of Ge2Sb2Te5 films under nano- and femtosecond laser pulse irradiation</i> , Journal of Applied Physics, 103, 023516 (2008)
43	A. Debernardi, C. Wiemer , and M. Fanciulli, <i>Epitaxial phase of hafnium dioxide for ultra-scaled electronics</i> , Phys. Rev. B. , 76, 155405 (2007) .
42	Alessandro Molle, Michele Perego, Md. Nurul Kabir Bhuiyan, Claudia Wiemer , Grazia Tallarida, and Marco Fanciulli, <i>The interface between Gd2O3 films and Ge (001): A comparative study between molecular and atomic oxygen mediated growths</i> , Journal of Applied Physics 102, 034513 (2007)
41	A. Zenkevich, Yu. Lebedinskii, S. Spiga, C. Wiemer , G. Scarel, M. Fanciulli, <i>Effects of thermal treatments on chemical composition and electrical properties of ultra-thin Lu oxide layers on Si</i> , Microelectronic Engineering 84 (2007) 2263-2266
40	V. Cosnier, P. Besson, V. Loup, L. Vandroux, S. Minoret, M. Cassé, X. Garros, J-M. Pedini, S. Lhostis, K. Dabertrand, C. Morin, C. Wiemer , M. Perego, and M. Fanciulli, <i>Understanding of the thermal stability of the hafnium oxide/TiN stack via 2 "high k" and 2 metal deposition techniques</i> Microelectronic Engineering 84 (2007) 1886-1889
39	Alessandro Molle, Claudia Wiemer , Md. Nurul Kabir Bhuiyan, Grazia Tallarida, and Marco Fanciulli, Giuseppe Pavia, <i>Cubic-to-monoclinic phase transition during the epitaxial growth of crystalline Gd2O3 films on Ge (001) substrates</i> , Appl. Phys. Lett. 90, 193511 (2007)
38	G. Scarel, C. Wiemer , M. Fanciulli, I. L. Fedushkin, G. K. Fukin, G. A. Domrachev, Y. Lebedinskii, A. Zenkevich, and G. Pavia <i>[(Me3Si)2N]3Lu: Molecular Structure and Use as Lu and Si Source for Atomic Layer Deposition of Lu Silicate Films</i> , Z. Anorg. Allg. Chem., 633, 2097-2103 (2007)
37	J.-L. Battaglia, C. Wiemer , M. Fanciulli, <i>An accurate low-frequency model for the 3w method</i> , Journal of Applied Physics 101, 104510 (2007) .
36	S. Ferrari, S. Spiga, C. Wiemer , M. Fanciulli, A. Dimoulas, <i>Germanium diffusion during HfO2 growth on Ge by Molecular Beam Epitaxy</i> , Applied Physics Letters 89, 122906 (2006) .
35	C. M. Compagnoni, A. Spinelli, A. Bianchini, A. Lacaíta, S. Spiga, G. Scarel, C. Wiemer , M. Fanciulli, <i>Temperature dependance of transient and steady state gate currents in HfO2 capacitors</i> , Appl. Phys. Lett. 89, 103504 (2006)
34	Dallera C., fracassi, F., Braicovich L., Scarel G., Wiemer C. , Fanciulli M., Pavia G., <i>Nondestructive diagnostics of high-kappa dielectrics for advanced electronic devices</i> , Applied Physics Letters 89, 183521 (2006) .
33	G. Scarel, C. Wiemer , G. Tallarida, S. Spiga, G. Seguini, E. Bonera, M. Fanciulli, G. Pavia, I. L. Fedushkin, G. K. Fukin, G. A. Domrachev, Y. Lebedinskii, and A. Zenkevich, <i>Atomic layer deposition of Lu silicate films using [(Me3Si)2N]3Lu</i> , Journal of the Electrochemical Society 153 (11) F271-F276 (2006)
32	S. D. Elliott, G. Scarel, C. Wiemer , and M. Fanciulli, <i>Ozone-based atomic layer deposition of alumina from TMA: growth, morphology and reaction mechanism</i> , Chemistry of Materials, 18, 3764-3773 (2006)
31	R. Mantovan, C. Wiemer , A. Zenkevich, and M. Fanciulli- <i>CEMS characterisation of Fe/high-κ oxide interfaces</i> Hyperfine Interactions 169, (2006)
30	G. Brunoldi, S. Guerrieri, S.G. Alberici, E. Ravizza, G. Tallarida, C. Wiemer , T. Marangon <i>Self-annealing and aging effect characterization on copper seed thin films</i> Microelectronic engineering Volume 82, Issues 3-4, December 2005, Pages 289-295

	(2005)
29	M. Malvestuto, G. Scarel, C. Wiemer , M. Fanciulli, F. D'Acapito and F. Boscherini <i>X-ray absorption spectroscopy study of Yb₂O₃ and Lu₂O₃ thin films deposited on Si(100) by Atomic Layer Deposition</i> , Nuclear Instruments and Methods in Physics 246, 90-95 (2006) .
28	S. Spiga, C. Wiemer , G. Scarel, G. Tallarida, G. Scarel, S. Ferrari, G. Seguni and M. Fanciulli, <i>Effects of the oxygen precursor on the electrical and structural properties of HfO₂ films grown by atomic layer deposition on Ge</i> , Appl. Phys. Lett. 87 112904 (2005)
27	S. Kremmer, H. Wurmbauer, and C. Teichert, G. Tallarida, S. Spiga, C. Wiemer , M. Fanciulli <i>Nanoscale morphological and electrical homogeneity of HfO₂ and ZrO₂ thin films</i> , J. Appl. Phys. 97, 074315 (2005)
26	K. Fröhlich, K. Hušeková, D. Machajdík, R. Lupták, M. Ľapajna, J. C. Hooker, F. Roozeboom, A. P. Kobzev, C. Wiemer , S. Ferrari, M. Fanciulli, C. Rossel, C. Cabral, Jr., <i>Preparation of SrRuO₃ films for advanced CMOS metal gates</i> Materials Science in Semiconductor Processing, 7, 265, (2004) .
25	G. Scarel, E. Bonera, C. Wiemer , G. Tallarida, S. Spiga, and M. Fanciulli, I. L. Fedushkin and H. Schumann, Yu. Lebedinskii and A. Zenkevich, <i>Atomic-layer deposition of Lu₂O₃</i> , Applied Physics Letters 85, 630, (2004)
24	A. Dimoulas, G. Vellianitis, G. Mavrou, G. Apostolopoulos, A. Travlos, C. Wiemer , M. Fanciulli, Z. M. Rittersma, <i>La₂Hf₂O₇ high-k gate dielectric grown directly on Si (001) by molecular beam epitaxy</i> Applied Physics Letters 85, 3205 (2004)
23	G. Scarel, S. Spiga, C. Wiemer , G. Tallarida, S. Ferrari, and M. Fanciulli <i>Trends of structural and electrical properties in atomic layer deposited HfO₂ films</i> , Mat. Sci. and Engineering. B vol. 109 issue 1-3, p. 11-16 (2004)
22	K. Frohlich, K. Husekova Z. Oszi, J.C. Hooker, M. Fanciulli, C. Wiemer , A. Dimoulas, G. Vellianitis, F. Roozeboom, <i>Metal oxide gate electrodes for advanced CMOS technology</i> , Annalen der Physik 13, 31 (2004)
21	C. Wiemer , M. Fanciulli, B. Crivelli, G. Pavia, M. Alessandri <i>Evolution of crystallographic ordering in Hf_{1-x}A-xO_y high-k dielectric deposited by atomic layer deposition</i> App.Phys. Lett 83, 5271 (2003)
20	<i>Ru and RuO₂ electrodes for advanced cmos technology</i> , K. Frohlich, K. Husekova, D. Machajdik, J. C. Hooker, M. Fanciulli, S. Ferrari, C. Wiemer , A. Dimoulas, G. Vellianitis, F. Roozeboom, Material Science and Engineering B 109, 117 (2004)
19	S. Spiga, C. Wiemer , G. Tallarida, M. Fanciulli, M. Malvestuto, F. Boscherini, F. D'Acapito, A. Dimoulas, G. Vellianitis, G. Mavrou <i>Structural characterization of epitaxial Y₂O₃ on Si and of the Y₂O₃/Si interface</i> , Material Science and Engineering B 109, 47 (2004) .
18	D. T. Dekadjevi, C. Wiemer , S. Spiga, S. Ferrari, G. Pavia, A. Gibaud, M. Fanciulli <i>Grazing incidence x-ray studies of ion implanted Sb nanocrystals in SiO₂</i> , Applied Physics Letters 83, 2148 (2003)
17	J. Ricote, D. Chateigner, M. Morales, M.L. Calzada, C. Wiemer <i>Application of the x-ray combined analysis to the study of lead titanate based ferroelectric thin films</i> , Thin Solid Films 450, 128 (2004)
16	C. Wiemer , S. Ferrari, M. Fanciulli, G. Pavia, L. Lutterotti <i>Combining grazing incidence x-ray diffraction and x-ray reflectivity for the evaluation of the structural evolution of HfO₂ thin films with annealing</i> Thin Solid Films 450, 134 (2004)
15	C. Wiemer , G. Tallarida, E. Bonera, E. Ricci, M. Fanciulli, G.F. Mastracchio, G. Pavia, S. Marangon, <i>Effects of the annealing temperature and surface preparation on the formation of cobalt silicide interconnects</i> Microelectronic Engineering, Vol 70/2-4 pp 233-239 (2003)
14	G. Scarel, S. Ferrari, S. Spiga, G. Tallarida, C. Wiemer , and M. Fanciulli <i>"Effect of growth temperature on the properties of ALD grown ZrO₂ films"</i> , J. Vac. Sci. Technol. A, 21 1359 (2003)
13	E. K. Evangelou, C. Wiemer , M. Fanciulli, M. Sethu, and W. Cranton <i>Electrical and structural characteristics of yttrium oxide films deposited by rf-magnetron sputtering on n-Si</i> , J. Appl. Phys. 94. 318-325 (2003)
12	S. Ferrari, G. Scarel, C. Wiemer , M. Fanciulli, <i>Chlorine mobility during annealing in N₂ in ZrO₂ and HfO₂ films grown by atomic layer deposition</i> , J. Appl. Phys. 92 7675 (2002) .
11	G. Apostolopoulos, G. Vellianitis, A. Dimoulas, M. Alexe, R. Scholz, M. Fanciulli, D. T. Dekadjevi, C. Wiemer <i>"High epitaxial quality Y₂O₃ high-k dielectric on vicinal Si(001) surfaces"</i> , Appl. Phys. Lett. 81, 3549 (2002) .
10	S. Ferrari, D. T. Dekadjevi, S. Spiga, G. Tallarida, C. Wiemer , M. Fanciulli <i>Structural and electrical characterization of ALCVD ZrO₂ thin films on silicon</i> , J. Non Crystalline Solids 303, 29 (2002) .
9	S. Banerjee, A. Gibaud, D. Chateigner, S. Ferrari, C. Wiemer , D.T. Dekadjevi <i>Study on the effect of plasma treatment on TiN films in N₂/H₂ atmosphere using x-ray reflectivity and secondary ion mass spectroscopy</i> , Appl. Phys. Lett. 80, 512 (2002) .
8	F. Levy, P. Hones, P. E. Schmid, R. Sanjines, M. Diserens, C. Wiemer <i>"Electronic states and mechanical properties in transition metal nitrides"</i> , Surf. Coat. Technol., 120-121, 284, (1999) .
7	R. Sanjines, C. Wiemer , P. Hones, F. Levy <i>Chemical bonding and electronic structure in binary VN and ternary TiVN nitrides</i> , J. Appl. Phys. 83, 1396 (1998) .
6	C. Wiemer , F. Levy, R. Messier <i>Effect of ion collisions on Langmuir probe measurements in Ti-N deposition by unbalanced magnetron sputtering</i> , J. Phys. D, Appl. Phys. 29, 99 (1996) .
5	C. Wiemer , F. Levy, R. Messier <i>Langmuir probe evaluation of ion bombardment during Ti-N growth by unbalanced magnetron sputtering</i> , Thin Solid Films 281-282, 52 (1996) .
4	R. Sanjines, C. Wiemer , J. Almeida, F. Levy, <i>Valence band photoemission study of the Ti-Mo-N system</i> , Thin Solid Films 290-291, 334 (1996) .
3	C. Wiemer , R. Sanjines <i>Deposition and characterization of refractory ternary phases: the transition metal nitride (TiMo)_N</i> , Surf. Coat. Technol. 86-87, 372 (1996) .
2	J. H. Moser, F. Tian, O. Haller, D. B. Bergstrom, I. Petrov, J. E. Greene, C. Wiemer <i>Single-phase polycrystalline Ti_{1-x}W_xN alloys (0<x<0.7) grown by UHV reactive magnetron sputtering: microstructure and physical properties</i> Thin Solid Films, 253, 445 (1994) .

1	C. Wiemer , F. Levy, F. Bussy <i>Determination of chemical composition and its relationship with the optical properties of Ti-N and Ti-V-N sputtered thin films</i> , <i>Surf. Coat. Technol.</i> , 68/69 , 181 (1994).
0-26	A. Molle, E. Cianci, A. Lamperti, C. Wiemer , S. Baldovino, L. Lamagna, S. Spiga, M. Fanciulli, G. Brammertz, C. Caymax , "Trimethylaluminum-Based Atomic Layer Deposition of MO ₂ (M=Zr, Hf) Gate Dielectrics on In _{0.53} Ga _{0.47} As(001) Substrates" , <i>ECS Transactions</i> 50 , 11-19 (2012)
0-25	C. Wiemer , A. Lamperti, L. Lamagna, O. Salicio, A. Molle, M. Fanciulli, <i>Detection of the Tetragonal and Monoclinic Phases and their Role on the Dielectric Constant of Atomic Layer Deposited La-doped ZrO₂ Thin Films on Ge (001)</i> , <i>ECS Transaction</i> , 35(3) , 481-490 (2011).
0-24	L. Lamagna, A. Molle, C. Wiemer , S. Spiga, C. Grazianetti, M. Fanciulli, <i>Atomic Layer Deposition of Al-doped ZrO₂ Thin Films for Advanced Gate Stack on III-V Substrates</i> , <i>ECS Transaction</i> , 35(3) , 431-440 (2011).
0-23	V. Schick, J.-L. Battaglia, A. Kusiak, C. Rossignol, C. Wiemer , Temperature dependant thermal and mechanical properties of a metal-phase change layer interface using the time resolved pump probe technique, <i>Journal of Physics: Conference Series</i> , 248 , 012024 (2011).
0-22	Battaglia J.-L., Cappella A., Varesi E.; Schick V., Kusiak A., Wiemer C. ; Longo M. Gotti A., Hay B., <i>Temperature-dependent thermal characterization of Ge(2)Sb(2)Te(5) and related interfaces by the photothermal radiometry technique</i> , <i>Journal of Physics Conference Series</i> 214 , 012102 (2010)
0-21	Del Vitto A., Piagge R., Ravizza E, Spadoni S., Sebastiani A., Scozzari C., Wiemer C. , Ghidini G., Alessandri M., Fanciulli M., Maes JW., Verghese M., <i>Evaluation of HfLaOx as blocking layer for innovative non volatile memory applications</i> , <i>ECS Transactions</i> 33 , 427-424 (2010)
0-20	Garros X., Casse M., Fenouillet-Beranger, C., Reibold G., Martin F., Gaumer C., Wiemer C., Perego M., Boulanger F., <i>Detrimental impact of technological processes on BTI reliability of advanced high-k/metal gate stacks</i> , <i>2009 IEEE International Reliability Symposium vol1-2</i> , 362-366 (2009)
0-19	A. Molle, C. Wiemer , M. N. K. Bhuiyan, G. Tallarida, M. Fanciulli, <i>Epitaxial growth of cubic Gd₂O₃ thin films on Ge substrates</i> , <i>Journal of Physics: Conference Series</i> , 100 , 042048 (2008).
0-18	C. Gaumer, E. Martinez, S. Lhostis, C. Wiemer , M. Perego, V. Loup, D. Lafond, J-M Fabbri, <i>Interface Study In a Metal High-k Gate Stack: Tantalum Nitride on Hafnium Oxide</i> , <i>ECS Transactions</i> , 16 (5) , 99, (2008).
0-17	S. Schamm, P.-E. Coulon, S. Miao, S. N. Volkos, H.-L Lu, L. Lamagna, C. Wiemer , D. Tsoutsou, G. Scarel, M. Fanciulli, <i>ALD-Grown Rare Earth Oxides for Advanced Gate Stacks</i> , <i>ECS Transactions</i> , 13 , 77-88 (2008).
0-16	U. Russo, D. Ielmini, C. Cagli, A. L. Lacaita, S. Spiga, C. Wiemer , M. Perego and M. Fanciulli <i>Conductive-filament switching analysis and self-accelerated thermal dissolution model for reset in NiO-based RRAM</i> , <i>IEEE International Electron Devices Meeting vol 1-2</i> , 775-778, (2007)
0-15	A. Del Vitto, R. Piagge, M. Caniatti, C. Wiemer , G. Pavia, F. Sammiceli, et al. <i>A Morphological, Chemical and Electrical Study of HfSiON Films for Inter Poly Dielectric Applications in Flash Memories</i> , <i>ECS Trans.</i> 11 , (4) 497 (2007)
0-14	M. Alessandri, R. Piagge, M. Caniatti, A. Del Vitto, C. Wiemer, G. Pavia, S. Alberici, E. Bellandi, A. Nale , <i>Structural and Chemical Investigation of Annealed Al₂O₃ films for Interpoly Dielectric Application in Flash Memories</i> , <i>ECS Trans.</i> 3 , (3) 183 (2006)
0-13	M. Alessandri, R. Piagge, S. Alberici, E. Bellandi, M. Caniatti, G. Ghidini, A. Modelli, G. Pavia, E. Ravizza, A. Sebastiani, C. Wiemer , S. Spiga, M. Fanciulli, E. Cadelano, G. M. Lopez, V. Fiorentini, <i>High-k materials in flash memories</i> , <i>ECS Transactions vol1, issue 5</i> , pg 91-105 (2006)
0-12	S. Elliott, G. Scarel, C. Wiemer , M. Fanciulli, Y. Lebedinskii, A. Zenkevich, and I. L. Fedushkin, "Precursor combinations for ALD of rare earth oxides and silicates – A quantum chemical and x-ray study". <i>Electrochem. Soc. Proc. Vol. 2005-09</i> , 605 (2005).
0-11	M. Climent, B. Crivelli, G. Righini, S. Alberici, M. Alessandri, A. C. Elbaz, G. Pavia, C. Wiemer <i>Crystallization Behavior of Hf-rich Aluminates and Influence on Film Dielectric Properties</i> <i>Mat. Res. Soc. Symp.</i> 811 , 313-318 (2004)
0-10	M. Fanciulli, S. Spiga, G. Scarel, C. Wiemer , G. Seguini, G. Tallarida, <i>Structural and electrical properties of HfO₂ films grown by atomic layer deposition on Si, Ge, GaAs and GaN</i> , <i>Mat. Res. Soc. Symp. Vol 786</i> , 341-346 (2004)
0-9	B. Crivelli, M. Alessandri, S. Alberici, D. Brazzelli, A. C. Elbaz, S. Frabboni , G. Ghidini, J. W. Maes ,G. Ottaviani, G. Pavia, C. Wiemer <i>Physical-Chemical Evolution of Hf-aluminates upon Thermal Treatments</i> , <i>Mat. Res. Soc. Symp. Proc. Vol. 765</i> , 65-70 (2003)
0-8	J.P. Chang, J. Sapjeta, J.M. Rosamilia, T. Boone, J. Jr. Eng, R. L. Opila, S. Brennan, C. Wiemer , P. Pianetta <i>The effect of dilute cleaning and rinsing chemistries on transition metal removal and Si surface microroughness</i> , <i>Cleaning technology in semiconductor device manufacturing. Proceedings of the sixth Int. Symposium (Electrochemical Society Proceedings)</i> , 99-36, 17 (2000).
0-7	S. Brennan, P. Pianetta, S. Ghosh, N. Takaura, C. Wiemer <i>Update on synchrotron radiation TXRF: new results</i> , <i>Mat. Res. Soc. Symp. Proc.</i> 534 , 245, (1998).
0-6	G. Scarel, C. Wiemer , S. Ferrari, G. Tallarida, and M. Fanciulli , <i>Effect of growth temperature on the properties of HfO₂ films grown by atomic layer deposition</i> , <i>Proceedings of the Estonian Academy of Sciences</i> .
0-5	C. Wiemer , D. T. Dekadjevi, S. Spiga, M. Fanciulli <i>Grazing Incidence x-ray study of ion implanted Sb nanocrystals formation</i> , <i>Acta Cryst. A</i> 58 (Supplement), C 169, (2002). <i>Proceeding of IUCr XIX, Geneva 2002</i> .
0-4	L. Lutterotti, L. Cont, A. Gibaud, D. T. Dekadjevi, C. Wiemer , J. Ricote, <i>Combining Rietveld and reflectivity for thin films analysis</i> , <i>Acta Cryst. A</i> 58 (Supplement), C 186 (2002) <i>Proceeding of IUCr XIX, Geneva 2002</i> .
0-3	C. Wiemer , F. Levy, R. Messier, <i>Stress dependence on ion bombardment in Ti-N thin films deposited by room temperature unbalanced magnetron sputtering</i> , <i>proceeding of the 6th European Conference on Application of Surface and Interface Analysis, ECASIA '95</i> , October 9-13 1995 Montreux, Switerland. TC5 pg. 779 Edited by: H.J. Mathieu, B. Reihl, D. Briggs, John Wiley and

	Sons, Chichester, New York, Brisbane, Toronto, Singapore (1996).
0-2	F. Levy, P. E. Schmid, C. Wiemer , W. T. Wu <i>Composite thin films and functional coatings</i> ", Proceedings of the first Swiss Conference on Material research for engineering systems , (1994).
0-1	G. Gremaud, Ph Richard, E. Steiger, F. Levy, C. Wiemer , H. _J Mathieu, Y. Pitton <i>Thin film characterization with the acoustic microscope: adhesion and elastic constant measurements</i> ", Conference: Materials research for engineering systems , Volume: "Materials research for engineering systems", éd. par B. Ilschner, M. Hofmann et F. Meyer-Obersleben, Technische Rundschau, Hallwag AG, Berne, p. 292-296 (1994)
b-3	A. Cappella, J.-L. Battaglia, V. Schick, A. Kusiak, C. Wiemer, M. Longo, B. Hay , " <i>Photothermal Radiometry applied in nanoliter melted Tellurium alloys</i> " , in: Materials Challenges and Testing for Supply of Energy and Resources , Springer, edited by: Thomas Böllinghaus, Jürgen Lexow, Teruo Kishi and Masaki Kitagawa part3, 273-283 (2012)
b-2	Spiga S., Wiemer C. , Scarel G., Seguini G., Fanciulli M., Zenkevich A., Lebedinskii Y., <i>Physical, Chemical, and Electrical Characterization of High-kappa Dielectrics on Ge and GaAs</i> , in : <i>Advanced Gate Stacks for High-Mobility Semiconductors</i> , Springer Series in Advanced Microelectronics , vol 27, pages 181-209 (2007)
b-1	Spiga S., Wiemer C. , Scarel G., Costa O., Fanciulli M., <i>Electrical characterization of rare earth oxides grown by atomic layer deposition</i> , in: <i>Rare Earth oxide thin films: growth, characterization and applications</i> , Topics in Applied Physics vol 103 , 203 (2007)
T-1	C. Wiemer , Structural and electronic properties of hard transition metal nitrides: Ti1-xVxNy and Ti1-xMoxNy sputtered thin films, Lausanne: EPFL, Thèse École polytechnique fédérale de Lausanne EPFL , n° 1535 , doi:10.5075/epfl-thesis-1535, (1996)

