

Europass Curriculum Vitae



Personal information

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Nationality(-ies)

Date of birth

Gender

Work experience

Dates
Name and address of employer
Type of business or sector
Occupation or position held
Main activities and responsibilities

01.12.2006 - present

FBK, Fondazione Bruno Kessler, via Sommarive 18, 38123 Povo, Trento, Italy Scientific research

Scientist, permanent position

- Head of the Custom Radiation Sensors research unit, FBK-SD, CRS (01.04.2022 - present).
- Head of Research and Development of the Micro-nano Characterisation and Fabrication Facility, FBK-CMM, MNF (01.01.2018 - 31.03.2022).
- Coordinator of the Materials Characterisation research group within the Micro-nano Characterisation and Fabrication Facility, FBK-CMM, MNF (01.01.2014 - 31.12.2017).
- Member of the management team and work closely with the coordinator of the EC project ANNA (FP6 - Integrated Infrastructure Initiative) (2006-2010).
- Responsible for X-Ray fluorescence and X-Ray absorption applied to surface science, microelectronics and nanotechnology related topics.
- Principal investigator for the X-ray Fluorescence and X-Ray Reflectivity activity

Dates
Name and address of employer

14.06.2010 - 19.02.2011

FBK, Fondazione Bruno Kessler, via Sommarive 18, 38123 Povo, Trento, Italy
Guest scientist, CRISMAT, ENSICAEN, Caen, France, Marie Curie Action - COFUND - progetto Trentino - Researcher 2009 – Outgoing (Call 4) with the project XMAT - Combination of X-Ray Diffraction and X-Ray Fluorescence Techniques in Material Science

Scientific research

Guest Scientist, 8 months

- Principal investigator of the XMat Project, Combination of X-Ray Diffraction and X-Ray Fluorescence Techniques in Material Science, mainly focussed on the combination of X-Ray Reflectivity and with Grazing-Incidence X-Ray Fluorescence.
- Instrumental adaptation for the combined acquisition and development of analysis code; application of the method to the analysis of praseodymium doped Silicon Rich Silicon Dioxide.

Type of business or sector
Occupation or position held
Main activities and responsibilities

Dates

01.04.2006 - 30.11.2006

Name and address of employer	ITC-irst, Istituto Trentino di Cultura - Centro per la Ricerca Scientif ca e Tecnologica, via Sommarive 18, 38050 Povo, Trento, Italy
Type of business or sector	Scientif c research
Occupation or position held	Collaborator on specif c projects
Main activities and responsibilities	<ul style="list-style-type: none"> – Support in the negotiation of the EC project ANNA (Integrated Infrastructure Initiative): preparation of the ANNEX I (description of work) and Contract Preparation Forms – Evaluation of previous EXAFS measurements on shallow arsenic implants in silicon wafers and interpretation of the data. – Application of Total Ref ection X-Ray Fluorescence to surface science related topics. – Acquisition of a Total Ref ection X-Ray Fluorescence instrument.
Dates	23.03.2003 - 22.03.2006
Name and address of employer	ITC-irst, Istituto Trentino di Cultura - Centro per la Ricerca Scientif ca e Tecnologica, via Sommarive 18, 38050 Povo, Trento, Italy
Type of business or sector	Scientif c research
Occupation or position held	Post-Doc position - 3 years contract
Main activities and responsibilities	<ul style="list-style-type: none"> – Principal investigator for the project “CABIA - Chemical-Physical Characterisation of Pollen as Bio-Indicator for Environmental Pollution” f nanced by the Autonomous Province of Trento: – X-Ray Fluorescence analyses and partly involved in ToF-SIMS analyses – application multivariate data analysis techniques – coordination of the analytical activities
Dates	01.06.2000 -31.03.2003
Name and address of employer	Atominstitut der Österreichischen Universitäten, Technische Universität Wien, Stationalee 2, 1020 Vienna, Austria
Type of business or sector	Scientif c research
Occupation or position held	Research assistant for the project “Synchrotron Radiation induced Total Ref ection X-Ray Fluorescence Analysis - Improvements, Developments and Applications” f nanced by the Austrian Science Fund (FWF).
Main activities and responsibilities	<ul style="list-style-type: none"> – Total Ref ection X-Ray Fluorescence Analysis Applied to different analytical problems of the material sciences – TXRF Instrument development and preparation of experiments to be carried out at different Synchrotron Radiation Facilities (Stanford Synchrotron Radiation Laboratory - SSRL - Menlo Park, USA; Hamburger Synchtrotronstrahlungslabor - HASY-LAB, Hamburg, Germany; BessyII, Berlin, Germany).
Dates	November 2001
Name and address of employer	PTB - Physikalisch-Technische Bundesanstalt, X-Ray Metrology Laboratory, Berlin, Germany
Type of business or sector	Scientif c research
Occupation or position held	Guest scientist at the X-Ray Metrology Laboratory of the Physikalisch- Technische Bundesanstalt (PTB), at BESSY II, Berlin, Germany
Main activities and responsibilities	<ul style="list-style-type: none"> – Work carried out at the plane grating monochromator (PGM) beamline to characterise organic contamination on silicon wafers. The work has been carried out in collaboration with Wacker-Siltronic (Burghausen) and involved TXRF and NEXAFS measurements.
Education and training	
Dates	October 1999 - January 2003
Name and type of organization providing education and training	Technische Universität Wien - Vienna University of Technology, Vienna, Austria

Principal subjects/Occupational skills covered

X-Ray Physics, X-Ray Fluorescence Instrumental design, preparation and conduction of experiments at different synchrotron radiation facilities (HASYLAB, SSRL, BessyII-PTB laboratory), data evaluation and interpretation. PhD thesis "Synchrotron Radiation induced Total Ref ection X-Ray Fluorescence Analysis applied to Material Science "

Title of qualification awarded
Level in national or international classification

Dr. techn. - equivalent to PhD
Mit Auszeichnung - with honour

Dates

October 1993 - June 1999

Name and type of organization providing education and training

Università degli Studi di Trento - University of Trento, Trento, Italy

Principal subjects/Occupational skills covered

Physics

Title of qualification awarded
Level in national or international classification

Laurea in Fisica - equivalent to Masters in Physics
110/110 e lode - 110/110 with honour

Dates

September 1991 - May 1993

Name and type of organization providing education and training

Atlantic College - United World College of the Atlantic, Llantwit Major, Wales, UK
High school following the International Baccalaureate (IB) program Admission after winning a scholarship in an open competition.

Principal subjects/Occupational skills covered

Mathematics, Physics, Chemistry, Economics, Italian, English, Theory of knowledge

Title of qualification awarded
Level in national or international classification

IB - International Baccalaureate bilingual Diploma (Italian, English)
39/45

Personal skills and competences

Mother tongue(s)

Italian

Other language(s)

Self-assessment

European level^(*)

English

German

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
C1	Proficient user	C1	Proficient user	B2	Independent user	B1	Independent user	B1	Independent user

^(*)Common European Framework of Reference (CEF) level

Social skills and competences

The United World Colleges are international schools that promote international understanding by bringing together students from all over the world. The students live and study together learning to respect and appreciate other peoples' culture, life style, ideas. A requirement of the IB course was service to the local community and I absolved it by organising and carrying out sport and leisure activities for children as well as adults with social or physical diff culties. The 2 years in Wales at Atlantic college have been very valuable for the following experiences in Vienna, and all the places and Laboratories where my work has brought me. Teamwork was essential for carrying out the research activities for my PhD at the Vienna University of Technology and in collaboration with the different synchrotrons, as it is for my current job.

Organisational skills and competences

- Head of the Custom Radiation Sensors research unit, Sensors&Devices Centre, Fondazione Bruno Kessler, Trento, Italy (01.04.2022 - present)
- Head of Research and Development of the Micro-nano Characterisation and Fabrication Facility(MNF), CMM, Fondazione Bruno Kessler, Trento, Italy (01.01.2018 - 31.03.2022)
- Coordinator of the Materials Characterisation research group within the Micro-nano Characterisation and Fabrication Facility (MNF), CMM, Fondazione Bruno Kessler, Trento, Italy (01.01.2014 - 31.12.2017)
- Member of the Executive Committee (Secretary, elected for the period June 2018 to June 2022) of the European X-Ray Spectrometry Association (<https://www.exsa.hu/?inh=2>)
- Chairman of the 12th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods, 18-22 June 2007, Trento, Italy.
- Guest Editor of the Special Issue of Spectrochimica Acta Part B dedicated to the 12th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods Co-editor of the ECS Transactions, 216th ECS Meeting, October 4 - October 9, 2009, Vienna, Austria, Analytical Techniques for Semiconductor Materials and Process Characterization 6 (ALTECH 2009)
- Manager of the Transnational Access Activities of the EC project ANNA (FP6 - Integrated Infrastructure Initiative); Anna, European Integrated Activity of Excellence and Networking for Nano and Micro- Electronics Analysis, aims to set-up a distributed analytical laboratory with competences in microelectronics and nanotechnology
- Supervisor of the PhD Thesis of Fabio Brigidi, University of Trento, Doctoral School: Physics, PhD Cycle: 27, Subjects: Area 02 - Scienze fisiche > FIS/03 FISICA DELLA MATERIA
- Coordinator for the hosting institute (FBK) of the Marie Curie Action, COFUND, progetto Trentino, Post Doc 2009 Incoming (Call1) of the Post Doc scientist Florian Meirer with the project DART - Dopant profile and Activation Research for advanced CMOS Technology
- Coordinator for FBK of the Industrial Research Project ISIWebLIMS with the company ANTHESI S.r.l., Cologna di Tenno, Trento, Italy, for the development of a software for the Quality management of analytical laboratories according to the UNI CEI EN ISO/IEC 17025:2005 norm, financed by the Autonomous Province of Trento (Legge Provinciale n. 6 del 1999, Bando 5/2009, Interventi attraverso partnership tra imprese e organismi di ricerca per lo sviluppo della ricerca e dell'innovazione)
- Coordinator for FBK of the PAiRED-X (Portable Analyzer combining Fluorescence and Diffraction of X-rays) project, EIT Raw Materials, upscaling project n. 17221; <http://nanoair.dii.unitn.it:8080/paired-x/>
- Supervisor for FBK (hosting institute) of the Post-Doc grant awarded by Fondazione Caritro to Andrea Gaiardo, entitled "Influenza e stabilizzazione di vacanze di ossigeno in ossidi metallici nanostrutturati per applicazioni di sensoristica gassosa chemoresistiva"

Technical skills and competences

Development of XRF related instrumentation
XRF Data analysis, simulation
Familiarity with Synchrotron Radiation Instrumentation, sample stages, X-Ray energy dispersive detectors, monochromators
Familiarity with Laboratory X-Ray equipment, (X-Ray Tubes, Detectors, . . .)
Coordination of a materials/surface analytical laboratory
Fabrication and deployment of Si-based energy dispersive X-Ray detectors

Computer skills and competences

Microsoft, Linux operating systems
Different common application packages for office and data analysis
Technical design (2D -3D) with CAD software
Programming in python, LabView (National Instruments), C, JAVA
Web management, web application framework Django(python), html, css

Driving licence(s)

B Italian

Teaching and educational activities

Schools and workshops

- Instructor, RAS7023-005 IAEA Regional Training Course on the utilization of Synchrotron Radiation Techniques for Advanced Analytical Studies on Air Pollution, Basovizza, Italy, 4-7 November 2014,
 - 1) Introduction to XAS
 - 2) Introduction to GI-XRF
- Instructor, Joint ICTP-IAEA Workshop on Advanced Synchrotron Radiation based X-ray Spectroscopy Techniques, ICTP, Miramare, Trieste, Italy, 22-26 April 2013, Grazing incidence X-Ray fluorescence analysis: a review
- Instructor, Joint ICTP/IAEA School on Synchrotron Radiation, ICTP, Miramare, Trieste, Italy, 21-25 November 2011,
 - 1) SR-(micro/T)XRF for environmental and conservation studies
 - 2) X-Ray Absorption Spectroscopy
- Instructor, Trace Analysis Workshop, Denver X-ray Conference 2011, 60th Annual Conference on Application of X-Ray Analysis, August 1-5, 2011, Colorado Springs, Colorado, USA
- Instructor, 7th European Winter School on Neutrons and Synchrotron Radiation Planneralm, Austria, March 7-11, 2011, X-Ray Absorption Spectroscopy

University/doctoral courses

- Member of the Teaching Board of the Doctoral School in Materials, Mechatronics and Systems Engineering, Department of Industrial Engineering, University of Trento
- Instructor, "Elemental Analysis by X-Ray Spectroscopy - Theory", Doctoral School in Materials, Mechatronics and Systems Engineering, Department of Industrial Engineering, University of Trento, March-April, 2017

Achievements in the scientific activity

National Scientific Habilitation

In 2018 I obtained the National Scientific Habilitation as Associate Professor for the academic sector 02/B1 Experimental physics of matter, validity from 30/03/2018 to 30/03/2024 (art. 16, comma 1, Legge 240/10)

Publications

Over 100 refereed publications in international journals

H-index

Scopus: 23; Google Scholar: 28

Awards (career)

2008 Young Scientist Award of the European X-Ray Spectrometry Association

Personal grants

Assignee of a guest scientist position at ENSICAEN, CRISMAT under the framework of the Marie Curie Action - COFUND - progetto Trentino - Researcher 2009 – Outgoing (Call 4) with the project XMAT - Combination of X-Ray Diffraction and X-Ray Fluorescence Techniques in Material Science

Invited oral presentations at conferences

- Nanoinnovation 2017, 26-29.09.2017, Roma, Italia (tutorial lecture)
- The 16th International Conference on Total Reflection X-ray Fluorescence Analysis and Related Methods, 3-7 August 2015, The Westin Westminster, Westminster, Colorado, USA
- European Conference on X-Ray Spectrometry 2014 (EXRS-2014), European Conference on X-Ray Spectrometry, Bologna, Italy, 15-20 June 2014
- The 15th conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods, Osaka, Japan, 23-27 September 2013, A review of Grazing Incidence X-Ray Fluorescence Analysis applied to the quantification of ion implants
- E-MRS 2011 SPRING MEETING, Symposium M: X-ray techniques for materials research-from laboratory sources to free electron lasers, May 10-12, 2011, Nice, France, TXRF XANES for trace speciation in biological and environmental studies.
- The 13th conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods, Göteborg, Sweden, June 15-19 2009, A review of Grazing Incidence X-Ray Fluorescence Analysis applied to the quantification of ion implants
- 55th Denver X-Ray Conference (2006) - Denver Marriott Tech Center Hotel, Denver, Colorado, USA, 7–11 August 2006, Speciation of traces by means of X-Ray absorption Spectroscopy with TotalReflection X-Ray Fluorescence Acquisition

Best poster Awards

- The 15th conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods, Osaka, Japan, 23-27 September 2013, B. Caby et al., XRR & GiXRF combined analysis of TCO/metal/TCO structures for photovoltaic applications
- Denver X-ray Conference 2011, 60th Annual Conference on Application of X-Ray Analysis, August 1-5, 2011, Colorado Springs, Colorado, USA, Grazing Incidence X-ray Fluorescence Analysis in Shallow Dopant Distributions and Thin Films Characterisation
- XRF Poster Award - 2008 Denver X-Ray Conference, F. Meirer et al., Grazing-Exit-XRF Experiments at Hasylab Beamline L
- XRF Poster Award - 2007 Denver X-Ray Conference, F. Meirer et al., Determination of the oxidation state of iron contaminations on silicon wafer surfaces with K-edge TXRF XANES
- XRF Poster Award - 2006 Denver X-Ray Conference, G. Pepponi et al., Arsenic speciation in cucumber (*Cucumis sativus* L.) xylem sap by K-edge TXRF-XANES
- XRF Poster Award - 2004 Denver X-Ray Conference, G. Pepponi et al., Chemical Physical characterisation of pollen with txrf and ToF-SIMS
- XRF Poster Award - 2004 Denver X-Ray Conference, N. Zoeger et al., Elemental Mapping of human brain by SR- θ XRF
- XRF Poster Award - 2002 Denver X-Ray Conference, G. Pepponi et al., NEXAFS Spectroscopy of organic contamination on Si wafers by TXRF

Seminars and presentations

- Karlsruhe Institute of Technology (KIT), Institut für Synchrotronstrahlung (ISS), Karlsruhe, Germany, 04.03.2010, Grazing Incidence X-Ray Fluorescence Analysis and X-ray Absorption applied to the characterisation of As shallow implants in Si
- Stanford Synchrotron Radiation Lightsource, Stanford, California, USA, 19.11.2009, Grazing incidence X-Ray Fluorescence applied to the quantification of ion implants

Additional information

References

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Annexes

List of refereed publications in the last five years

13/10/2022

Giancarlo Pepponi

SIGNED IN ORIGINAL

Annex I - Refereed publications

- [1] M. Carminati, G. Borghi, E. Demenev, M. Gugliatti, G. Pepponi, M. Crivellari, F. Ficorella, S. Ronchin, N. Zorzi, E. Borovin, L. Lutterotti, and C. Fiorini.
32-channel silicon strip detection module for combined x-ray fluorescence spectroscopy and x-ray diffractometry analysis.
Frontiers in Physics, 10, 2022.
- [2] S. Fugattini, U. Gulzar, A. Andreoli, L. Carbone, M. Boschetti, P. Bernardoni, M. Gjestila, G. Mangherini, R. Camattari, T. Li, S. Monaco, M. Ricci, S. Liang, D. Giubertoni, G. Pepponi, P. Bellutti, M. Ferroni, L. Ortolani, V. Morandi, D. Vincenzi, and R. Proietti Zaccaria.
Corrigendum to “binder-free nanostructured germanium anode for high resilience lithium-ion battery” (electrochimica acta (2022) 411, (s0013468622000044), (10.1016/j.electacta.2022.139832)).
Electrochimica Acta, 424, 2022.
- [3] V. Ioannou-Sougleridis, S. Alafakis, B. Pécz, D. Velessiotis, N.Z. Vouroutzis, S. Ladas, M. Barozzi, G. Pepponi, and D. Skarlatos.
Post-metallization annealing and photolithography effects in p-type ge/al₂o₃/al mos structures.
ECS Journal of Solid State Science and Technology, 11(4), 2022.
- [4] P. King, M. Gugliatti, M. Carminati, L. Buonanno, G. Borghi, G. Pepponi, P. Lechner, D. Siegmann, K. Urban, T. Houdy, S. Mertens, and C. Fiorini.
Design and characterization of kerberos: A 48-channel analog pulse processing and data acquisition platform.
Journal of Instrumentation, 16(7), 2021.
- [5] E. Hourdakis, G. Pepponi, M. Barozzi, and A.G. Nassiopoulou.
Simple method for determining si p-n junction depth using anodization.
Microelectronic Engineering, 244-246, 2021.
- [6] L. Giuntini, L. Castelli, M. Massi, M. Fedi, C. Czelusniak, N. Gelli, L. Liccioli, F. Giambi, C. Ruberto, A. Mazzinghi, S. Barone, F. Marchegiani, S. Nisi, C. Lubritto, S. Altieri, L. Tortora, P. Branchini, A. Fabbri, V. Graziani, S.B. Lins, L. Guidorzi, A.L. Giudice, A. Re, L. Sottili, A. Balerna, M.C. Guidi, L. Pronti, M. Romani, F. Albertin, M. Bettuzzi, R. Brancaccio, M.P. Morigi, D. Alloni, A. Salvini, B. Smilgys, M. Prata, S. Altieri, M. Bonesini, D. Di Martino, M. Clemenza, M. Carpinelli, P. Oliva, V. Sipala, A.M. Gueli, S. Pasquale, G. Stella, G. Pepponi, F. Grazzi, and F. Taccetti.
Detectors and cultural heritage: The infn-chnet experience.
Applied Sciences (Switzerland), 11(8), 2021.
- [7] V. Prusakova, G. Giusti, C. Collini, G. Pepponi, M. Barozzi, L. Lorenzelli, S. Iannotta, R. Verucchi, and S. Dirè.
Merging the sol–gel technique with the pulsed microplasma cluster source deposition to improve control over the memristive response of tio₂ thin films.
Coatings, 11(3), 2021.
- [8] A. Gaiardo, D. Novel, E. Scattolo, A. Bucciarelli, P. Bellutti, and G. Pepponi.
Dataset of the optimization of a low power chemoresistive gas sensor: Predictive thermal modelling and mechanical failure analysis.
Data, 6(3), 2021.
- [9] R. Carcione, S. Politi, E. Iacob, C. Potrich, L. Lunelli, L.E. Vanzetti, R. Bartali, V. Micheli, G. Pepponi, M.L. Terranova, and E. Tamburri.
Exploring a new approach for regenerative medicine: Ti-doped polycrystalline diamond layers as bioactive platforms for osteoblast-like cells growth.
Applied Surface Science, 540, 2021.
- [10] M. Perenzoni, M. Ali, G. Pepponi, and V. Guidi.
A compact current-and voltage-mode model of antenna-coupled fet terahertz detectors.
IEEE Transactions on Electron Devices, 68(2):471–478, 2021.
- [11] R. Dell’anna, E. Iacob, M. Tripathi, A. Dalton, R. Böttger, and G. Pepponi.
Afm and raman study of graphene deposited on silicon surfaces nanostructured by ion beam irradiation.
Journal of Microscopy, 280(3):183–193, 2020.
- [12] A. Gaiardo, B. Fabbri, A. Giberti, M. Valt, S. Gherardi, V. Guidi, C. Malagù, P. Bellutti, G. Pepponi, D. Casotti, G. Cruciani, G. Zonta, N. Landini, M. Barozzi, S. Morandi, L. Vanzetti, R. Canteri, M. Della Ciana, A. Migliori, and E. Demenev.
Tunable formation of nanostructured sic/sioc core-shell for selective detection of so₂.
Sensors and Actuators, B: Chemical, 305, 2020.
- [13] S. Krik, A. Gaiardo, M. Valt, B. Fabbri, C. Malagù, G. Pepponi, D. Casotti, G. Cruciani, V. Guidi, and P. Bellutti.
Influence of oxygen vacancies in gas sensors based on metal-oxide semiconductors: A first-principles study.
Lecture Notes in Electrical Engineering, 629:309–314, 2020.

- [14] M. Carminati, A. Amirkhani, M. Gugiatti, E. Ferrara, C. Fiorini, E. Demenev, G. Pepponi, S. Ronchin, F. Ficorella, G. Borghi, N. Zorzi, E. Borovin, and L. Lutterotti.
32-channel detection unit for combined xrf-xrd in mining transportable applications.
2019.
- [15] D. Martorelli, M. Bortolotti, M. Capris, L. Lutterotti, L. Maines, G. Pepponi, and S. Gialanella.
A combined experimental approach to the study of ancient coins and its application the venetian “sesino”.
Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, 455:108–113, 2019.
- [16] R. Carcione, E. Tamburri, R. Bartali, G. Speranza, V. Micheli, G. Pepponi, P. Bellutti, and M.L. Terranova.
On the route to produce conductive ni-related color centers in cvd-grown diamond.
Multifunctional Materials, 2(3), 2019.
- [17] M. Valt, B. Fabbri, A. Gaiardo, S. Gherardi, D. Casotti, G. Cruciani, G. Pepponi, L. Vanzetti, E. Iacob, C. Malagu, P. Bellutti, and V. Guidi.
Aza-crown-ether functionalized graphene oxide for gas sensing and cation trapping applications.
Materials Research Express, 6(7), 2019.
- [18] I. Stabrawa, A. Kubala-Kukuś, D. Banaś, G. Pepponi, J. Braziewicz, M. Pajek, and M. Teodorczyk.
Characterization of the morphology of titanium and titanium (iv) oxide nanolayers deposited on different substrates by application of grazing incidence x-ray diffraction and x-ray reflectometry techniques.
Thin Solid Films, 671:103–110, 2019.
- [19] D. Martorelli, M. Bortolotti, L. Lutterotti, G. Pepponi, and S. Gialanella.
Characterization of the mistura alloy used for venetian sesino coins: 16th century.
X-Ray Spectrometry, 48(1):8–20, 2019.
- [20] L. Perneczky, M. Rauwolf, D. Ingerle, D. Eichert, F. Brigidi, W. Jark, S. Bjeoumikhova, G. Pepponi, P. Wobrauschek, C. Strel, and A. Turyanskaya.
Temporary implementation and testing of a confocal sr- μ xrf system for bone analysis at the x-ray fluorescence beam-line at elettra.
Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 897:114–119, 2018.
- [21] R. Dell’Anna, E. Iacob, M. Barozzi, L. Vanzetti, R. Hübner, R. Böttger, D. Giubertoni, and G. Pepponi.
The role of incidence angle in the morphology evolution of ge surfaces irradiated by medium-energy au ions.
Journal of Physics Condensed Matter, 30(32), 2018.
- [22] E. Tamburri, R. Carcione, S. Politi, M. Angiellari, L. Lazzarini, L.E. Vanzetti, S. Macis, G. Pepponi, and M.L. Terranova.
Shungite carbon as unexpected natural source of few-layer graphene platelets in a low oxidation state.
Inorganic Chemistry, 57(14):8487–8498, 2018.
- [23] D. Skarlatos, V. Ioannou-Sougleridis, M. Barozzi, G. Pepponi, N.Z. Vouroutzis, D. Velessiotis, J. Stoemenos, N. Zographos, and B. Colombeau.
Issues with n-type dopants in germanium.
volume 86, pages 51–58, 2018.
- [24] L.E. Fuentes-Cobas, D. Chateigner, M.E. Fuentes-Montero, G. Pepponi, and S. Grazulis.
The representation of coupling interactions in the material properties open database (mpod).
Advances in Applied Ceramics, 116(8):428–433, 2017.
- [25] C. Masciullo, R. Dell’Anna, I. Tonazzini, R. Böettger, G. Pepponi, and M. Cecchini.
Hierarchical thermoplastic rippled nanostructures regulate schwann cell adhesion, morphology and spatial organization.
Nanoscale, 9(39):14861–14874, 2017.
- [26] M. Bortolotti, L. Lutterotti, and G. Pepponi.
Combining xrd and xrf analysis in one rietveld-like fitting.
Powder Diffraction, 32(S1):S225–S230, 2017.
- [27] N. Cavallari, F. Pattini, S. Rampino, F. Annoni, M. Barozzi, M. Bronzoni, E. Gilioli, E. Gombia, C. Maragliano, M. Mazzer, G. Pepponi, G. Spaggiari, and R. Fornari.
Low temperature deposition of bifacial cigs solar cells on al-doped zinc oxide back contacts.
Applied Surface Science, 412:52–57, 2017.
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Angle resolved xps for selective characterization of internal and external surface of porous silicon.
Applied Surface Science, 406:144–149, 2017.
- [29] F. Brigidi and G. Pepponi.
Gimpy: a software for the simulation of x-ray fluorescence and reflectivity of layered materials.
X-Ray Spectrometry, 46(2):116–122, 2017.

- [30] D. Skarlatos, V. Ioannou-Sougleridis, M. Barozzi, G. Pepponi, D. Velessiotis, M.C. Skoulikidou, N.Z. Vouroutzis, K. Papagelis, P. Dimitrakis, C. Thomidis, and B. Colombeau.
Phosphorous diffusion in n²⁺-implanted germanium during flash lamp annealing: Influence of nitrogen on substrate damage and capping layer engineering.
ECS Journal of Solid State Science and Technology, 6(7):P418–P428, 2017.
- [31] R. Dell’Anna, C. Masciullo, E. Iacob, M. Barozzi, D. Giubertoni, R. Böttger, M. Cecchini, and G. Pepponi.
Multiscale structured germanium nanoripples as templates for bioactive surfaces.
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