

CURRICULUM VITAE

Silvano Lizzit

- Born in Lestizza (Udine, Italy) 21/08/1964
- Italian citizen
- Married

Studies

- 1983: High School diploma of "Perito Tecnico Industriale Meccanico" at Istituto Tecnico Industriale "A. Malignani" in Udine, Italy.
- 1992: Laurea diploma in Physics, *summa cum laude* at the University of Trieste, Italy. Title of the thesis: *Study of the interaction of atomic nitrogen with Rh(110) surface: characterisation of different structures obtained by NO+H₂ reaction and by dissociation of NH₃ and N₂*. Adviser: Prof. Renzo Rosei.
- 2003: PhD degree in Physics, Doktor der Naturwissenschaften, *magna cum laude* at Die Technische Universität München, Germany. Title of the thesis: *Surface-shifted core level photoemission from clean and oxygen covered metal surfaces*. Adviser: Prof. Dr. Dr. h. c. Dietrich Menzel.

Professional positions

- November 1992 - December 1993: Graduating student in the SuperESCA group of Sincrotrone Trieste S.C.p.A.
- 1/2/93-31/5/94: Consultant of Sincrotrone Trieste S.C.p.A. in the SuperESCA group.
- 1/6/94-present: employee with permanent contract of Elettra Sincrotrone Trieste S.C.p.A. as scientist of the SuperESCA beamline. From 1/1/2001 coordinator of the SuperESCA beamline.
- 1/4/2011 to 7/10/2019 Coordinator of the Spectroscopy/Scattering Beamlines Group of Elettra Sincrotrone Trieste S.C.p.A.
- 7/10/2019-present: Coordinator together with the former Microscopy/Diffraction beamlines Coordinator of the upgrade and construction plan of the beamlines within the Elettra 2.0 project.

Research experience

The main subject of my research is the experimental solid state physics, mainly focussed on the electronic, geometric and chemical properties of surfaces and nanostructures. I've used a large variety of Surface Science Techniques, many of them based on Synchrotron Radiation. Since the beginning of my activity I've worked in the SuperESCA group of Elettra. I was directly involved in the set-up of SuperESCA, a soft X-Ray High Resolution Beamline, which I supervise since 2001, and in the development of the Fast-XPS technique for the study of surface reactions (Surf. Sci. Rep. 49, (2003) 169).

At Elettra I've contributed to the set-up of BaDElPh, a low energy beamline for High Resolution "Bulk" Photoemission and Angle-Resolved Photoemission with high momentum-resolution.

I've conducted my research activity not only at Elettra but also in other synchrotron radiation facilities like Advanced Light Source (Berkeley, USA), Bessy I and Bessy II (Berlin, Germany), MAX II (Lund, Sweden) and ISA (Aarhus, Denmark), where I performed research on surfaces, new materials and nanostructures using mainly core level photoemission, X-ray absorption, photoelectron diffraction and band mapping. In the following are outlined my skills and fields of interest:

- Experience of Ultra High Vacuum and Synchrotron Radiation in Third generation storage rings.
- Experience of several Surface Science techniques, such as HRXPS (High Resolution X-ray Photoelectron Spectroscopy) with Synchrotron radiation, FAST-XPS, XPD (X-ray Photoelectron Diffraction), NEXAFS (Near Edge X-ray Absorption Fine Structure), HPXPS (High Pressure XPS), AES (Auger Electron Spectroscopy), TPD (Thermal Programmed Desorption), LEED (Low Energy Electron Diffraction).
- Main fields of interest:
 - a) Study of the elementary steps of catalytic reactions on metal surfaces with photoemission/absorption spectroscopy techniques on third generation synchrotron radiation facilities;
 - b) Study of the geometric structure of atomic and molecular adsorbates on single crystal metal surfaces with photoelectron diffraction;
 - c) Study of the electronic and chemical properties of low-dimensional materials such as single layer graphene, boron nitride and transition metal dichalcogenides grown on top of different surfaces, graphite and carbon nanotubes;
 - d) Design and development of UHV instrumentation for Synchrotron Radiation applications.

My publication list contains 230 entries in international, peer refereed journals. The *h*-index of 40 demonstrates my internationally recognized expertise in the study of the electronic, chemical and structural properties of surfaces, interfaces and nanostructures.

Trieste, January 13th 2021

Signature

