

CURRICULUM VITAE of ALESSANDRA FILABOZZI

First name	<i>Alessandra</i>
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Alessandra Filabozzi

Nationality: Italian

Date of birth: 31/07/1961

Main Research Topic

Fields of interest: Dynamics of water and biological macromolecule under extreme conditions. Structure and dynamics simple and complex materials. High pressure. Characterization of hydrogen as energy carrier from renewable sources.

Atomic physics: infrared induced absorption Physics of liquids: structure and dynamics of simple classic or quantum liquids Molecular solids: single particle dynamics in solids containing light atoms. Cultural Heritage Development of new instrumentation for neutron spectroscopy with innovative neutron detectors project and simulations.

Techniques: Neutron spectroscopy, Deep inelastic neutron scattering, X spectroscopy, High Resolution IR, MD simulation, High pressure in liquids

Skills: Scattering techniques: Neutron scattering, Infrared spectroscopy at synchrotron. Instrumentation for neutron scattering detection.

Teaching: Fundamental Physics for Chemistry, Neutron Spectroscopy for Material Science; physics Laboratory

Role and Activity

Since 2015: Assistant Professor at the Dep. of Physics of the University of Rome "Tor Vergata

Since 2017: member of the CUN (Consiglio Universitario Nazionale - body of the Italian Ministry of Research) for Area 02-Physics

2004-2007: member of the Academic Senat for Physics Area

Since 1992 permanent researcher at the Dep. of Physics of the University of Rome "Tor Vergata"

Previous experiences

1998 –2000: Invited Professor and CNRS researcher at L.U.R.E. Centre Universitaire Paris Sud, Orsay (France).

1993 – 1995: Post Doc at Laboratoire Leon Brillouin", CEA Saclay (France)

1987 –1988: Post Laurea at CNR /ISM (Istituto di Struttura della Materia), Frascati (Rome)

1986 – 1987: teacher in secondary school "Galileo Galilei" of Rome.

National and International Research Project:

- Uncovering Excellence 2014: PI Project PROFI "The good and the bad of protein fibrillation"
- COST ACTION : 2012-TD1102 (Phototec), EU 48
- PRIN 2007: Participant . Biomatrici polimeriche: caratterizzazione chimico fisica - 20077LCNTW_003
- PRIN 2003: Participant . Dinamica microscopica dell'acqua in geometria confinata mediante spettroscopia di neutroni e raggi X - 2003022584_004

- PRIN 1998: Responsible Research Unit . Proprietà statiche e dinamiche di liquidi a legame idrogeno: sistemi puri, loro miscele ed interazioni con macromolecole - 9802627172_004
- FP VI-2003-NEST-B-3: Analysis by neutron resonant capture imaging and other emerging neutron techniques: new cultural heritage and archaeological research methods - ANCIENT CHARM
- FP IV- TMR-FMGE980142, "VESUVIO -A project to provide enhanced neutron scattering capability at the highest energy transfers" PROJECT, START DATE: 1/10/1998 END DATE: 30/9/2001
- Principal Investigator of 20 experimental proposals accepted on peer review basis, at european research facilities (STFC ISIS neutron source -UK; ILL -FR; Laboratoire Leon Brillouin, Saclay, FR; SOLEIL, Synchrotron Radiation Facility, Saclay, FR)

Publications of relevance

Author of 53 article on ISI scientific journals, scopus h-index 14 (June 2020).

M. Catti , O. Fabelo , A. Filabozzi , A. Pietropaolo, A. Santucci, S. Tosti, Kinetics of deuteration of the Pd_{0.772}Ag_{0.228} alloy with α/β phase transition by in-situ neutron diffraction, Journal of Alloys and Compounds 790, 502-508 (2019), DOI: 10.1016/j.jallcom.2019.03.216

M. Carbonaro, F. Ripanti, A. Filabozzi, V. Minicozzi, F. Stellato, E. Placidi, S. Morante, A. Di Venere, E. Nicolai, P. Postorino, A. Nucara
Human insulin fibrillogenesis in the presence of epigallocatechin gallate and melatonin: structural insights from a biophysical approach
International Journal of Biological Macromolecules 115, 1157-1164 (2018).

Daniela Russo, Alessio Laloni, Alessandra Filabozzi, Matthias Heyden
Pressure effects on collective density fluctuations in water and protein solutions - Insights from experiments and simulations.
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 114 (43), 11410-11415 (2017).

M. Catti , O. Fabelo , A. Filabozzi , A. Pietropaolo , S. Tosti , A. Pozio , A. Santucci
Neutron diffraction study of the Pd_{0.772}Ag_{0.228}Dv membrane for hydrogen separation
Journal of International Hydrogen Energy 42 (2017) 6787-6792
DOI: 10.1016/j.ijhydene.2017.01.130

A. Pietropaolo, P. Console Camprini, P. Agostini, R. Amendola, M. Angelone, D. Bernardi, F. Bruni, M. Capogni, D. Colognesi, R. Faccin, A. Filabozzi, D. Flammini, F. Fiori, M. Frisoni, F. Grazzi, M. Pillon, A. Pizzuto, L. Quintieri, F. Sacchetti, P. Valente, The New Sorgentina Fusion Source-NSFS: 14 MeV neutrons for fusion and beyond, Journal of Physics: Conference Series 746 (2016) 012037, DOI :10.1088/1742-6596/746/1/012037

M. Fanfoni, A. Filabozzi, E. Placidi, F. Patella, A. Balzarotti, F. Arciprete
"2D Voronoi tessellation generated by lines and belts of dots "
Phys. Lett. A 380, 516-519 (2016).

Marina Carbonaro; Almerinda Di Venere; Alessandra Filabozzi; Paola Maselli; Velia Minicozzi; Silvia Morante; Eleonora Nicolai; Alessandro Nucara; Ernesto Placidi; Francesco Stellato
"Role of dietary antioxidant (-)-epicatechin in the development of β -lactoglobulin fibrils"
Biochimica et Biophysica Acta 1864, 766–772 (2016).

Ferrario, M., et al., "IRIDE: Interdisciplinary research infrastructure based on dual electron linacs and lasers", NIM A 740 (2014) 138-146, DOI: 10.1016/j.nima.2013.11.040

A. Filabozzi, E. Pace, A. Pietropaolo, "Enhancing the performances of a Resonance Detector Spectrometer for Deep Inelastic Neutron Scattering measurements" , Nuclear Inst. and Methods in Physics Research, A, 673 (2012) 1-9, Doi: 10.1016/j.nima.2011.12.103

A. Filabozzi, A. Deriu, M. T. Di Bari, D. Russo, S. Croci, A. Di Venere, "Elastic incoherent neutron scattering as a probe of high pressure induces changes in protein flexibility", Biochimica et Biophysica Acta 1804 (2010) 63–67,DOI: 10.1016/j.bbapap.2009.08.025