

László Forró - Curriculum Vitae

Address:

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Education:

MS Eötvös University - 1979, Budapest, Hungary
Ph.D. University of Zagreb - 1985, Croatia

Professional experience:

1980 - 1982 Fonteney aux Roses, France, Visiting Scientist
1982 - 1985 Institute of Physics, University of Zagreb, Research Assistant
1985 Ruhr-Universität Bochum (4 months) (high pressure study of the static magnetic susceptibility of organic conductors and superconductors)
1985 - 1989 Institute of Physics, University of Zagreb, Research Scientist
1986 Fonteney aux Roses, France (9 months) (high pressure study of charge density wave chain conductors, organic metals)
1987 Grenoble, France (10 months) (magnetotransport of high T_c superconductors, heat transport in heavy fermions) electronic and magnetic properties of disordered systems)
1989 - 1991 State University of New York in Stony Brook, visiting assistant professor, 18 months (transport and infrared properties of high temperature superconductors)
1991- 2001 Ecole Polytechnique Fédérale de Lausanne senior research associate
2002-present Ecole Polytechnique Fédérale de Lausanne - full professor
2008- on sabbatical leave at Columbia University, New York
2003-2009 Director of the Institute of Physics of Complex Matter at the EPFL

Publications

- over 600 papers
- 5 book chapters
- over 40 invited talks
- over 20'000 citations
- h-index: 74

Honors and awards

- Member of the Hungarian Academy of Sciences
- Member of the Croatian Academy of Sciences
- Member of the Serbian Academy of Sciences
- Doctor Honoris Causa of the University of Szeged, Hungary

- Spiridon Brusina Award of the Croatian Society of Natural Sciences
- ERC Advanced Grant PICOPROP, 2015

Other activities

- Referee for European and Overseas National Science Foundations
- Referee for the European Science Foundation
- Member of Review Panels
- Member of recruitment committees.
- Project leader in the National Center of Competence in Research MaNEP
- Referee for major scientific journals (Nature, Science, JACS, Physical Review Letters...)

Languages: Hungarian, Croatian, French, English

Research interest

Three major research fields:

1. Novel electronic materials;
2. Functional nanostructures, and
3. Biomaterials.
4. Toxicity

The topics are:

- Synthesis, physical properties and manipulation of carbon nanostructures and nanostructured arrays.
- Oxidative stress, studied by ESR, AFM, SIRM, PFM. Toxicity study of various nanostructures.
- Mechanical properties of biological tubular systems, carbon nanotubes, carbon onions by AFM.
- Transport and electron spin resonance studies of molecular materials, quasi-one-dimensional organic metals, organic superconductors, cuprates, manganates and fullerenes - up to high pressures.
- Tunneling spectroscopy in cuprate and fullerene superconductors.
- Optical properties of strongly correlated systems and biomaterials.

Strong involvement in instrumentation developments:

- Photonic Force Microscope (1 MHz sampling rate, 2 Å spatial resolution)
- Real-force feedback nano-manipulator for AFM and PFM
- Very high frequency Electron Spin Resonance spectrometer (up to 420 GHz)
- Stopped-flow and high-pressure ESR and far-infrared measurements