

CURRICULUM VITAE

Name: Benea

Surname: Diana Ancuta

Birth date: 08.01.1970

Birth place: Cluj-Napoca

Nationality: Romanian

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Studies:

Institution: "Emil Racovita" Lyceum Cluj-Napoca; Period Sept. 1984 – June 1988; Certificate and degrees: 'Diploma de bacalaureat'

Babes-Bolyai University Cluj-Napoca, Faculty of physics, (solid state physics); Period Sept. 1988- June 1993; Certificate and degrees: Physicist,' Diploma with Honors'

Ludwig Maximilians University München Period: 1999 – 2004 Certificate and degrees; Ph. D. (Magna cum laude)

Scientific title: Dr. rerum nat.

Professional experience:

- September 1993- September 1996: Lyceum M. Eminescu, Lyceum L. Blaga Cluj-Napoca, Physics teacher
- September 1996-January 1999: University Babes-Bolyai, Faculty of physics, Chair of condensed state physics Cluj-Napoca, Professor assistant
- February 1999-Dec. 2004, University Ludwig-Maximilians, Department Chemistry, Faculty of Chemistry and Pharmacy, Ph. D. student
- Dec. 2004-Jul. 2005, University Ludwig-Maximilians, Department Chemistry, Faculty of Chemistry and Pharmacy, postdoc researcher
- November 2005-2007, University Babes-Bolyai Cluj-Napoca, Faculty of physics, post-doc researcher
- Nov. 2007- Jul. 2018 Scientific researcher III
- Jul. 2018 -present Scientific researcher II

Competence domains:

Ab initio methods for describing the electronic structure of solids:

- Band structure calculations (KKR, LMTO) in solids
- Density functional theory
- Description of nonstoichiometric systems using the coherent potential approximation (CPA).
- Ab initio methods for description of the magnetic/spectroscopic properties of solids: magnetic Compton scattering, positron annihilation, X ray magnetic dichroism, XPS spectroscopy.

Currently, my research activity is related to the theoretical investigations of the electronic and magnetic properties of the solid-state compounds and spectroscopic properties of nanomaterials.

Research projects:

- **Principal investigator** in the national project *Study of the magnetic properties of intermetallic compounds of $RCO_{5-x}M_x$ type ($R = \text{rare earth or Th}$, $M = B, Si, A$). Electronic band structure calculations. Contract **CEEX-RP nr 5943 /18.09.2006 (2006-2008)**.*

- **Partner coordinator** in the national project “ Permanent magnets without rare earth with high energetic efficiency” (*MAGNEF*) **PN-II-PT-PCCA-2013-4-0971** –in partnership with in INCDTIM Bucharest and Pur-Tech SRL
- **Principal investigator** in the national project „New Heusler materials with spintronic applications” (*HEUSPIN*) **PN-II-RU-TE-2014-4-0009 (383/10.11.2015)**
- **Director** of the Brancusi RO-FR colabration project **PN-III-P3-P3.1-PM-RO-FR-2016-0057**,*Functional magnetic materials for high energetic efficient devices’ (ENERMAG) 94BM/2017*
- **Principal investigator** of the national grant *Permanent magnets with high efficiency and low costs (EFIMAG)* **PN-III-P2-2.1-PED-2019-3484 (506PED/2.11.2020)**
- **Member** in the research teams of other 15 national projects.

Reviewer for: Intermetallics, Journal of Solid State Chemistry, Romanian Journal of Physics, Europhysics Letters, Zeitschrift fur Naturforschung A, J. Alloys Compd., Crystals.

Foreign experience:

- Ph.D. student at LMU Munchen (1999-2004)
- **DAAD grant** holder (3 months in 2010, 1 month in 2013) at LMU München, group of Prof. H. Ebert
- **Invited researcher** in the DFG Research Unit FOR 1346 (2 months in 2011, 1 month in 2012, 1 month in 2014)
- **National coordinator** and member of the management committee of the European scientific COST MP1306 Action ‘Modern Tools for Spectroscopy on Advanced Materials: a European Modelling Platform’

Invited speaker at

- the KKR network conference ‘Green’s function in ab initio electronic structure. From Implementation to applications’, Bad Honnef 9-11 Feb. 2015”
- “Introduction to the application of ab-initio method in spectroscopy (AIMIS15)”, Pilsen, 23-26 Feb. 2015,
- “The multiple scattering Green’s function approach to electronic structure and spectroscopy calculations”, 30 AUG-10 SEPT. 2021, LES HOUCHES, FRANCE.

Scientometric indicators:

- 56 records on Scopus, sum of time cited 805 (1.03.2024), Hirsch index = 14; <https://orcid.org/0000-0002-2973-6746>

Others:

- Diploma of Project manager, certified by CNFPA (Romanian authority for qualifications)
- British Council certification for Academic Teaching Excellence (20 Sept. 2019)
- 1 dissertation and 2 license theses coordinated
- Habilitation thesis “*Theoretical Aspects on the Electron Momentum Density and Electronic Band Structure in Condensed Matter*” – certificate obtained by Order 5779/16.10.2020.

Cluj-Napoca, 1.03.2024