

## ***Foreword***

### ***Anniversary of Professor Onuc Cozar***

Professor Onuc Cozar was born in 1946, march 29, Sancriau-Almasului, Salaj.

He graduated Babes-Bolyai University Cluj-Napoca in 1970. Since 1972 worked at "Babes-Bolyai" University, Faculty of Physics, first as teaching assistant (1970-1983), assistant professor (1983-1990) and professor (1990-present), respectively.

Prof. Onuc Cozar earned in 1979 his PhD in Physics with thesis "Molecular structure and adsorption dynamics of some Cu(II) complexes determined by EPR spectroscopy".

Prof. O. Cozar was visiting professor at: University of Padova (1993), U.N.E.D. Madrid (1996), Univ. Claude Bernard Lyon (1999, 2002, 2005) and Technical University Aachen (2003), respectively.

Professor Onuc Cozar presented courses, lectures and laboratory for disciplines: Physics of atoms and molecule, Nuclear Physics, Molecular Symmetry, Dosimetry and Radiation Protection, Detection of nuclear radiation and Nuclear spectroscopy. Understanding the importance of modern directions in science, he introduced new courses. In the framework of Master of Science Program he has been involved in teaching advanced courses in Resonance methods with biomedical applications and Complements of physics of molecule. At doctoral school presented lectures on Methods and theoretical models in atomic physics. In the position of PhD coordinator he supervised 29 theses (of which 3 in joint supervision with Claude Bernard University, Lyon).

The courses are very clearly presented and at high scientific level, and the teaching activities performed by Prof. Onuc Cozar are much appreciated by the students.

The scientific activities of Prof. Onuc Cozar were directed particularly the:

- Structure and molecular dynamics;
- The interaction between metallic paramagnetic ions with some compounds of biomedical interest (drugs, aminoacids, nucleotides);
- Solvent effects and molecular association mechanisms;
- The identification of the irradiation products in different biomolecules – their kinetics;

- Estimation of the structures and molecular properties using non-empirical methods (DFT); EPR on paramagnetic coupled systems (clusters);
- Local structure and interaction between paramagnetic ions in oxide matrices;
- Applications of physical methods in medical diagnosis and therapy.

The scientific results of Prof. Onuc Cozar were published in 466 papers, 200 being in ISI quoted journals (J. Molec. Structure, Chem. Physics, Vibrational Spectroscopy, J. Mass Spectrometry, Appl. Magn. Resonance, J. Chem. Soc. Dalton Transaction, J. Raman Spectroscopy etc.). Around 27 papers were published in Romanian ISI Journals and international ISI Proceedings, 42 papers in non ISI International Journals, 173 papers in Romanian Journals of Physics, 52 papers in Proceedings of other International and National Conferences. He has Hirsch indices  $H=21$  (Scopus).

His theoretical and experimental researches as well as his pedagogic experience were fructified into a series of 16 books, frequently used by the students in area of their courses. These are remarkable for their accuracy and clarity as well as scientific level the monography "Electron spin resonance for metallic complexes" (Romanian Academy Publishing Houses-Bucharest 2001).

Professor Onuc Cozar is member of many Romanian and international scientific societies as: Romanian Physical Society, Romanian Society for Radioprotection, Romanian Society of Magnetic Materials, European Physical Society, Balkan Physical Society, International Society of Resonance (ISMAR), Ampere Group, American Association of Physicist in Medicine (AAPM).

He has done extensive research in management sciences, holding several management positions: Dean of the Faculty of Physics, Cluj-Napoca (2007 – 2011), Head of the Research Center "Molecular systems of biomedical and environmental interest" (2001 - 2011), Member of the First Exact Sciences Commission, CNEEA – Bucharest (1998 - 2006), Head of Atomic, Nuclear and Environment Department, Faculty of Physics (1990 - 2003), Member of Scientific Research Council of "Babes-Bolyai" University (1998 - 2002), Scientific Secretary of Faculty of Physics (1996 - 2000).

Professor O. Cozar has extensive experience in the management of national / international scientific projects, gaining over 33 scientific contracts and grants.

Professor O. Cozar is member of the Editorial Board of some Romanian Journals (Studia UBB Physica, "Babes-Bolyai" University Cluj, Annals of the Timișoara, University and Oradea University-Series Physics) and Reader to a series of international scientific journals.

Professor Onuc Cozar, member of Academy of Romanian Scientists, has been awarded by Romanian Academy and by "Babes-Bolyai" University (11 diploma of excellence and professor emeritus in 2012), respectively. He was involved in scientific

programs with University Claude Bernard Lyon (France), University of Padova (Italy), University of Aachen (Germany).

He was invited to sustain plenary presentations at many national and international meetings and conferences. Professor O. Cozar organized several national and international conferences, symposiums and summer school as: National symposium on solid state physics (1978, Cluj-Napoca), Symposium: methods, models and technics in physics and related fields (Cluj-Napoca in 1982, 1984, 1986), The Conference of Isotopic and Molecular Processes (Cluj-Napoca in 1999, 2001, 2003, 2005, 2007). The 5<sup>th</sup> Conference on Medical Physics of ARFM (Cluj-Napoca, Romania, 25-27 oct. 1995), Summer School "The Physics of Radiation Therapy" (10-14 June 1999, Cluj-Napoca, Romania), Ecole d'été „Methodes avancées d'analyse spectroscopique. Applications" (25 Aug. – 3 Sept. 2001, Cluj-Napoca, Romania), Applications of FT-IR, FT-Raman and Micro-Raman Techniques to Physical, Chemical, Biological, Medical and Environmental Research, Workshop (28-29 May, 2002, Cluj-Napoca, Romania), Advanced Spectroscopies on Biomedical and Nanostructured Systems, (NANOSPEC) (Cluj-Napoca, Romania, 2004, 2006, 2008, 2011), The 31st European Congress on Molecular Spectroscopy. EUCMOS (2012, Cluj-Napoca).

Today, at seventy years old, Prof. Onuc Cozar is surrounded by researchers which continue his scientific activity.

Happy birthday and all the best!

Prof.dr. Aurel Pop  
Dean-Faculty of Physics

