

## Professor Marin Ivaşcu's 80<sup>th</sup> anniversary

Professor Marin Ivaşcu was born on November 27<sup>th</sup>, 1931, in the village of Bolintin Deal, outside of Bucharest.

After graduating, in 1955, with a degree in Physics from the University of Bucharest, he started his career as a nuclear physics researcher at the Cyclotron Laboratory of the Institute of Atomic Physics, Bucharest-Magurele, as a member of the team of Acad. Horia Hulubei. His initial research was related to nucleon-induced nuclear reaction mechanisms in light and medium-mass nuclei, establishing the competition between direct and compound nucleus processes. In 1964, he proposed another type of experiments to be performed at the Cyclotron accelerator: elastic and inelastic scattering of alpha particles and ( $\alpha$ , p) reactions. The goal of those experiments was to provide new data for the Optical Model and DWBA theoretical tools just emerging at that time. His PhD thesis, "Elastic and Inelastic Diffusion of Alpha Particle on Medium Mass Nuclei," under the supervision of Acad. Horia Hulubei, constituted a major contribution in the field. Marin Ivaşcu and his co-workers published their results on reaction mechanism in the most prestigious international journals. It is worth mentioning that those papers were part of the beginning of the contribution of the Romanian nuclear physicists in the international arena.

In 1969–1970, as a fellow at the Robert Van-de-Graff Laboratory of the University of Utrecht, the Netherlands, Professor Marin Ivaşcu switched his scientific interests to nuclear structure studies, first with hadronic probes and later on with electromagnetic probes. In this context, Professor Marin Ivaşcu and his team performed pioneering research using ( $d,\alpha$ ) reactions for both spectroscopy of excited states and lifetime measurements using Doppler shift techniques.

Upon his return to Romania in 1971, Professor Marin Ivaşcu started to build a strong nuclear structure program at the Tandem and Cyclotron laboratories of the Institute of Atomic Physics. New data on lifetimes of nuclear excited levels in medium-mass nuclei were obtained. After 1976, Professor Marin Ivaşcu and his team concentrated their research activities on nuclear structure studies using gamma-ray spectroscopy with heavy-ion induced reactions. New valuable data on the nuclear structure of medium-mass nuclei were obtained and interpreted in the framework of geometrical and algebraic models.

Beginning in 1980, Professor Marin Ivaşcu, became involved in a very fruitful collaboration with Professor Dorin Poenaru and Acad. Aurel Săndulescu in a very new field, "Exotic Radioactivity". The results of the collaboration constituted one of

the most prestigious achievements of Romanian nuclear physicists, recognized worldwide and published in Plenum Press and CRC Press (USA).

After 1990, the scientific interest of Professor Marin Ivaşcu was concentrated in a very modern subject for that time, “Protonic Radioactivity” and nuclear physics with Radioactive Ion Beams. Also, at the Bucharest Tandem accelerator he initiated studies of cross sections for reactions of astrophysical interest, as well as of gamma-ray spectroscopy (including lifetime measurements) with non-selective reactions such as (p,n) and ( $\alpha$ ,n).

Author of more than 150 scientific articles, published in the most prestigious national and international journals, Professor Marin Ivaşcu is recognized by the international community as one of the most prominent Romanian physicists.

In addition to an outstanding scientific career, Professor Marin Ivaşcu is recognized as one of the founders of a prestigious Romanian school of nuclear physics. He has always been committed to the education and the progress of young physicists. Having supervised more than 30 Ph.D. students in nuclear physics, he has left his imprint on a whole generation of Romanian nuclear physicists.

Throughout his entire career, Professor Marin Ivaşcu has had a very strong contribution to Science Policy in Romania. As head of the Cyclotron Laboratory (1971–1977) and as Director General of the Institute of Nuclear Physics and Engineering (IFIN) (1977–1989), Professor Marin Ivaşcu has had a decisive contribution in strengthening Nuclear Physics in Romania. As Director General of the Central Institute of Physics (ICEFIZ) (1977–1989), with his sense of responsibility and his outstanding organizational skills, Professor Marin Ivaşcu coordinated with competence the National Programs in Physics. As Vice President of the State Committee for Nuclear Energy (CSEN), he coordinated the physics research related to nuclear power in Romania.

Over the years, Prof. Ivaşcu was an active representative of the Romanian Physics on the international arena: member of the Scientific Council of the Joint Institute for Nuclear Research (JINR) Dubna (1977–1990), member of the Council of the European Physical Society (1978–1981, 1984–1987), member of the Scientific Program Committee of JINR (1992–1995).

Professor Marin Ivaşcu is a distinguished personality, a unique blend of knowledge, competence, vision, ideas, and talent.

On his 80<sup>th</sup> anniversary, The Editorial Board of ‘*Romanian Reports in Physics*’ wishes Professor Marin Ivaşcu a long and healthy life, success, and accomplishments in his scientific and family life.

*Editorial Board*