

Editorial Board of Acta geodynamica et geomaterialia deeply regrets loss of prof. A.N.Nikitin who unexpectedly died, he was a longstanding member of our board.



**An obituary of
Anatoly N. Nikitin**

05. 01. 1950 – 20. 07. 2012

Professor Anatoly N. Nikitin passed away on July, 20, 2012, after a heart attack. He was one of the leading scientists of the Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research (Dubna, Russia).

Anatoly N. Nikitin was born on the 5th of January, 1950, in Rostov-on-Don, Russia. After his graduation in 1973 with a degree in Physics from Leo Tolstoy Tula State Pedagogical University and after obtaining his Ph.D. in Geophysics in 1978 from Schmidt Institute of Physics of the Earth RAS (Moscow) Anatoly N. Nikitin held the position of Associated Professor and head of the Department of Physics (Tula State Pedagogical University). Then he was appointed as a dean of Physical Faculty.

In 1992 he moved to Dubna and started to work in the Department of Condensed Matter Physics of the Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research (Dubna). His Ph.D thesis (1978) and Doctorate (1994) thesis concerned the problems of petrophysics, namely, the physical properties of rocks determined mainly by mineral crystallographic textures. The scientific activity of Anatoly N. Nikitin in FLNP gave new creative impetus to the investigation of rocks by neutron diffraction at the IBR-2 pulsed reactor (Dubna, Russia). In a short time he became a leader and a key participant in the neutron diffraction studies of geological materials at high pressures and high temperatures. A new trend in the earth sciences – geophysical texture analysis – was formed with his active participation. He initiated neutron diffraction studies of rocks from the Kola superdeep borehole which led to unexpected and very important scientific results in geophysics. He used the combination of neutron diffraction and ultrasonic sounding for interpretation of seismic anisotropy of the Earth's lithosphere on the basis of mineral texture analysis of deep rocks. He constructed a special chamber for uniaxial compression and high temperatures that was installed at the texture diffractometer, and obtained new original results on anomalous behavior of rocks at high temperatures and loading. The application of these data contributed to the development of physical models of the earthquake source. The above-mentioned studies were carried out in successful collaboration with the scientists from geophysical organizations and universities of Russia, Czech Republic and Germany.

Anatoly N. Nikitin was a member of the European Geophysical and Seismological Societies. He was a member of the Petrophysical Committee of the Russian Academy of Sciences (Moscow). He was the author and co-author of numerous (about 200) papers in reviewed scientific journals as well as the author of an original series of lectures "The basics of the neutron diffraction texture analysis" and the textbook with the same title. His monograph "Seismotectonic effects of solid-state transformation in geomaterials" was published in 2009.

Anatoly N. Nikitin was a member of the editorial board of the international journal "Acta Geodynamica et Geomaterialia" published in the Czech Republic. He was also a member of the Dissertation Councils at the Joint Institute for Nuclear Research (Dubna) and at the Tula State University.

In addition to his creative scientific talent A.N. Nikitin had an outstanding gift for teaching. He spared neither effort nor time for personal contacts with students and young scientists. It was Anatoly N. Nikitin who initiated and concluded an agreement between JINR and Tula State University on the joint activities in training highly-skilled physicists. This cooperation proved to be extremely fruitful and starting from 1996 more than 50 students from Tula performed their diploma work in the Frank Laboratory of Neutron Physics. Five students defended their PhD theses under the supervision of Professor A.N.Nikitin.

Professor A.N.Nikitin was a man of great intelligence, a good leader, a good friend and as mentioned before an extraordinary scientist. His success as a scientist and as a teacher was in his creative intellect, the depth of his perceptions and the wide interdisciplinary range of his interests, which encompassed the fields of history, art, philosophy and science. He enjoyed life very much and always took a keen interest in all public, scientific and political events. He was an easy-going and friendly person who had many friends all over the world. He influenced the lives of many, including his family, and his many students and colleagues. His premature departure leaves a deep void which will be difficult to fill. We'll miss this wonderful person and a brilliant scientist.