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MODERN ACHIEVEMENTS OF THE EXPERIMENTAL METHODS
IN THE FIELD OF INVESTIGATION IN THE STRUCTURE AND
DYNAMICS OF POLYMERS AND POLYMER COMPOSITE MATERIALS
(XVI ENIKOLOPOV'S READINGS)

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The conference with the title "Modern achievements of the experimental methods in the field of investigation in the structure and dynamics of polymers and polymer composite materials" was held on March 13, 2008 at N.S. Enikolopov Institute of Synthetic Polymer Materials (ISPM) Russian Academy of Sciences – RAS (Moscow). The late academician Enikolopov was the founder of ISPM and the first director of this Institute.

This conference was organized by Division of Chemistry and Material Science (CHMS) of RAS, ISPM, Scientific Council "Highmolecular Compounds" of CHMS, N.N.Semenov Institute of Chemical Physics (ICP) RAS (Moscow), Institute of Problems of Chemical Physics (Chernogolovka, Noginsk district, Moscow area) and Moscow Physical-Technical Institute (Dolgoprudnyi town, Khimki district, Moscow area).

About 150 scientists from 25 research centers of RAS, Ministry of High Education of Russian Federation and some companies took part in the conference. The program of the conference included seven plenary lectures which were divided between two sessions.

The first report was presented by O.M. Sarkisov (ICP) and was devoted to new directions of chemical investigations in application of femtosecond technologies.

The method of investigation of structure information in polymer systems (blends and composites) were discussed in the lecture of A.E. Chalykh, V.K. Gerasimov, A.V. Shpagin (A.N. Frumkin Institute of Physical Chemistry and Electrochemistry, Moscow).

The group of scientists from ISPM (S.L. Bazhenov, A.S. Kechev'yan) and Chemical faculty of M.V. Lomonosov Moscow State University (A.L. Volynskii, N.F. Ba-keev, N.V. Bol'shakovsa, S.V. Moiseeva, D.A. Panchuk and L.M. Yarysheva) presented information about the new approach for estimation of mechanical properties of solid materials (nanometric layers).

The report of A.I. Buzin (ISPM) and N.A. Erina (VEECO Co., New York, USA) was devoted to the application of scanning force microscopy methods for investigation of structure of polymers and composite materials.

Application of wide-angle dielectric spectroscopy for control of heterogeneity in distribution of carbon nanotube and nanoparticles of aluminosilicates in polymer matrix was presented in the report of I.A. Chmutin, N.G. Ryvkina, I.L. Dubnikova (ICP) and S.P. Kuznetsov (P.N. Lebedev Physical Institute of Academy of Sciences).

The director of ISPM A.N. Ozerin delivered the last lecture of the conference. He spoke about forms and structures of nanoparticles that can be obtained on the basis of low-angle X-ray analysis.

The XVI Enikolopov's readings show that the ideas of N.S. Enikolopov are implemented in the researches of his pupils and scientists of his Institute as well as in different research centers all over the world.

The next XVII Enikolopov's readings will be held in March 2009 in ISPM (Moscow).