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## 13th European Symposium on Organic Chemistry (13 ESOC)

I. P. Beletskaya

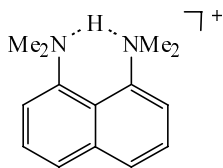
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The 13th European Symposium on Organic Chemistry was held on September 10–15, 2003, in Dubrovnik (Croatia). The symposium has brought together more than 400 participants; 13 plenary lectures, 46 oral communications, and a vast number of posters have been presented, which covered all aspects of modern organic chemistry. A high scientific level of the conference and its excellent organization must be noted.

The lecture by J.A. Gladysz (Germany) was entitled “From sp Carbon to sp<sup>3</sup> Carbon Double Helix: Molecular Wire with an Insulation.” The lecturer considered compounds like C<sub>6</sub>F<sub>5</sub>PtL<sub>2</sub>–(C≡C)<sub>n</sub>–PtL<sub>2</sub>C<sub>6</sub>F<sub>5</sub> which give rise to a helical structure through bidentate phosphine ligands with a definite length of the chain capable of winding about the conjugate molecule.

The stereodynamic relations observed in the NMR spectra upon H-bonding in “proton sponges” were the subject of the lecture presented by G.C. Lloyd-Jones and co-workers (United Kingdom). The formation of such hydrogen bond reduces the acidity by six orders of magnitude relative to PhNHMe<sub>2</sub><sup>+</sup> (pK<sub>a</sub> > 18 in MeCN).



I.P. Beletskaya (Russia) reported on new ways of building up carbon–heteroelement bonds via substitution and addition reactions catalyzed by transition metal complexes. A specific emphasis was given to the “Green chemistry” aspects, in particular to reactions occurring without a solvent.

A wide potential of an arylamide containing an ortho-formyl group was demonstrated by J. Clayden (United

Kingdom). This compound was utilized in numerous stereocontrolled reactions leading to biologically active substances. The lecture by A.M.P. Koskinen (Finland) was concerned with the use of natural extrinsic asymmetric induction products; the synthesis of Calyculin C was considered as an example. M. Saunders (USA) presented a lecture which stood somewhat aside of the general line. The author reported on insertion of a helium atom into fullerene molecule and their mutual influence which is reflected in the spectral data.

New porphyrin-like compounds in which one pyrrole ring is replaced by phenyl, thienyl, or furyl fragment, as well as those in which the heteroatom occupies a different position, and their coordination properties were the subject of the lectures by L. Latos-Grazynski (Poland). The synthesis of new chiral amino alcohols from chiral epoxy compounds and their use as ligands in some catalytic reactions were considered by M.A. Pericas (Spain).

As it usually was, very impressive results were presented by I. Ojima (USA) who reported on the synthesis of second-generation taxanes which are known as anticarcinogenic agents. Some of these compounds have already shown striking results in the treatment of cancer. A remarkable lecture was read by B.L. Feringa (The Netherlands). It was entitled “Chirality Control. From Molecular Switches to Molecular Motors.” The author demonstrated outstanding advances in this field, including control over molecular organization at a supramolecular level and development of a molecular motor whose molecules are capable of rotating under irradiation with visible light.

The use of palladium-catalyzed reactions in multi-step transformations leading to natural products (primarily, Heck reactions), as well as in enantioselective syn-

theses of biologically active compounds, e.g., cephalotoxin and tetracycline antibiotics, was brilliantly demonstrated by L.F. Tietze (Germany). The lecture of J. Balme (France) also dealt with palladium-catalyzed reactions, specifically multicomponent and cascade reactions which lead to formation of a diversity of heterocyclic compounds possessing interesting biological properties.

Synthesis of new materials, including macrocyclic ones, was also considered by G. Gottarelli (Italy) and R. Deschenaux (Switzerland). In the first case, the subjects were guanosine nucleotides, and in the second, dendrimer derivatives obtained from fullerene malonate. Various interesting problems were touched on in invited lectures and oral communications. Here, the reports made by the

Russian scientists V.N. Charushin and O.N. Chupakhin should be noted. They reported on new syntheses based on nucleophilic aromatic substitution of hydrogen which makes it possible to introduce various functional groups, including complex macrocyclic moieties, into molecules of azines.

On the whole, despite limited participation of scientists from USA and Japan, the conference was performed at a quite high level, and the presented reports contained much information on various fields of organic chemistry, including new methods, new compounds and materials, and new reaction media.

The next, 14th Symposium on Organic Chemistry will be held in Finland two years after.