

Congresses, Conferences, Symposia, Workshops, and Seminars in the Field of Chemical Sciences Held with Participation of the Russian Academy of Sciences

Poly(vinyl chloride) and other chlorine containing polymers: the latest achievements in the investigations*

The Conference devoted to the problems of synthesis, studies of properties, and some aspects of the use of poly(vinyl chloride) (PVC) and poly(vinylidene chloride) (PVDC) was held on June 8–9, 1995, in Williamsburg (Virginia, USA). This place was not an accidental choice, since during past five years, one of the leading world centers on the studies of the chemistry of PVC headed by professor W. H. Starns was created in Williamsburg.

The Conference was organized and financed by the William and Mary College (Williamsburg). William Herbert Strans was the Chairman of the Organizing Committee.

The Conference was attended by 65 specialists from 8 countries: Canada, China, Egypt, France, India, Russia, South Korea, and USA representing 20 research centers of Universities and Institutes of Academies of Sciences or companies.

The program of the Conference included 8 plenary lectures and discussions on various problems of synthesis and studies of the properties of PVC, most of all, on the problems of aging and stabilization of PVC.

The Conference was opened by *W. H. Starns*, who delivered a lecture devoted to the principal mechanisms of polymerization of vinyl chloride and microstructure of PVC. Problems of nonradical polymerization of vinyl chloride were discussed in the report by *B. L. Gudoll*, *G. M. Benedikt*, *R. J. Kozens*, and *L. F. Rods* (Breksville, Ohio, USA). The authors considered a large number of catalytic systems and identified their advantages and drawbacks. Particular attention was paid to Ziegler–Natta catalysts and magnesium-based catalysts and to their practical use.

In the report devoted to the problems of destruction and stabilization of PVC, *W. H. Starns* presented a historic review in which he noted studies of Russian scientists *K. S. Minsker* and *Al. Al. Berlin*. The questions of what chemical structures in a polymeric molecule are responsible for the low thermal stability of PVC and what ways of increasing the PVC stability are the most promising were discussed in detail. A particular system of chemical additives efficiently increasing the stability of PVC was considered.

Professor *W. H. Starns* delivered one more report, in which he presented the results of recent studies of the mechanism of photodestruction and considered ways of light stabilization of PVC.

Two reports by *R. Pike* (William and Mary College) and *W. H. Starns* dealt with methods of decreasing the flammability of PVC and suppressing the fumigation during the burning of PVC materials. Solution of this problem acquires increasing significance, since a lot of people are killed during fires in transport, flats, or industrial premises, due to asphyxiation with toxic gases evolved by burning polymers, rather than by the fire.

Conclusive reports were presented by *R. Hawell* (Michigan University, Mount-Plesant, USA). In these reports, the methods of synthesis, structures, and properties of poly(vinylidene chloride)-based polymers and the problems of destruction and stabilization of PVDC were considered and characteristic features and peculiarities of this polymer, compared with PVC, were identified.

It should be noted that the Conference went off at a high scientific level, and the information discussed is valuable for both scientists and practical engineers working in the field of chemistry and physics of chlorine containing polymers. A drawback of the Conference was the low number of participants.

The next Conference on this subject will be held in 1997.

* Based on the materials kindly presented by G. I. Zaikov and A. Ya. Polishchuk.