drugs impair smooth pursuit movements, but these effects are dose-related (*9*). To our knowledge, no studies of the effects of phenothiazines on smooth pursuit movements have been published. It is conceivable that long-term treatment with phenothiazines, as is given to schizophrenic patients, may improve rather than impair pursuit movements. We are currently studying this problem in an animal model. But several nonschizophrenic subjects who were taking phenothiazine medication did not show the eye-tracking dysfunction; the relatives of our schizophrenic subjects were not taking these drugs, yet many of them showed the deviant eye-tracking patterns. We thus cannot accept the allegations that the effects we observed were drug-induced.

In our normal group, two of four subjects with abnormal patterns had a gaze nystagmus. Troost *et al.* assert that this indicates "that the authors did not clinically examine their controls or schizophrenics for eye movement disturbances." This is an incorrect conclusion on their part. All of our subjects were examined clinically, and our scoring was done independently of the knowledge of that examination and of the diagnostic status of the patients. The eye-tracking test was part of a larger series of tests which included vestibular examinations. None of our other subjects showed gaze nystagmus. To have excluded these two normal controls from data analysis would not be legitimate, since the purpose of examining a large number of normals was to get some estimation of the expected prevalence of deviant tracking patterns in the nonpatient population.

Since Troost *et al.* did not attempt to replicate our study, their response is exclusively a methodological note. They are apparently used to working with near absolute values of eye position and eye velocity and were therefore understandably irked by our measurement. They would impose a precision of measurement which would not be appropriate to our task; they are not concerned with the reproducibility or the stability of our data.

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Meetings

Moscow Symposium on Radiation Chemistry of Aqueous Systems

The symposium on radiation chemistry of aqueous systems held in Moscow, 10 to 14 December 1973, was sponsored by the Soviet Academy of Sciences and chaired by Professor A. K. Pikaev of the Institute of Physical Chemistry of the Academy of Sciences. The symposium was attended by 20 radiation chemists from the United States, Great Britain, Yugoslavia, Poland, Norway, Denmark, Sweden, Hungary, West Germany, and East Germany, in addition to about 150 radiation chemists from the Soviet Union. The 55 papers that were presented in nine sessions included 17 papers that were given by the foreign participants. The sessions were devoted to discussions of general problems of radiation chemistry, effects observed in frozen systems, and the radiation chemistry of aqueous solutions of inorganic and organic compounds and of biologically important systems. The presentations were given in either Russian or English. Abstracts of the talks were available in both languages. The presentations themselves were not translated but the discussions were. Slides were presented with English captions. After the symposium visits to the laboratories of the Institutes of Physical Chemistry, Organic Chemistry, and Electrochemistry were arranged for the foreign participants.

The symposium was opened by Academician V. I. Spitzyn with general remarks about the applicability of information gained in radiation chemical studies to many areas of chemical and biological research. Similar emphasis on fundamental research aspects was very much evident throughout the remaining presentations which were devoted entirely to discussions of results of current researches on the mechanistic details of various radiation induced processes. There were no general reviews and very little time was devoted to instrumental methods, although there was a fair amount of informal discussion on those methods. In their individual talks participants emphasized optical pulse radiolysis studies carried out from picosecond through microsecond times, the examination of intermediate radicals by electron spin resonance (ESR) spectroscopy, and determination of the overall chemistry by product analysis. The Soviets have active pulse radiolysis programs in three laboratories in Moscow (the Institutes of Physical Chemistry and Electrochemistry and the Karpov Institute). Stabilized radicals are studied by ESR in many laboratories throughout the Soviet Union. The overall chemistry received somewhat more attention at this symposium than in other recent radiation chemical conferences that I have attended, probably because there is a considerable emphasis on this approach within the Soviet laboratories.

The emphasis of the sessions on frozen systems was on ESR and optical studies. A number of researches that involved examination of products produced in alkaline ices at 77°K were also presented. Work of this type is being carried out at the Institute of Physical Chemistry and at Moscow State University. Attention was paid to the abnormally high local concentrations of radicals produced in the spurs of radiation chemical processes where there is considerable activity in the application of ESR spin-echo techniques at the Institute of Chemical Kinetics and Combustion in Novosibirsk. Scavenging of the initial radicals produced in various ices (mostly at

77°K, although some work is being done at 4°K) by inorganic ions such as NO_3^- was discussed. Effects of solutes on the thermoluminescence observed from irradiated acid ices were also described. There was considerable discussion of evidences for tunneling of both trapped electrons and hydrogen atoms in experiments at low temperatures. The results of recent experiments on polymerization of formaldehyde at 4°K being conducted in the Institute of Chemical Physics (Moscow) were reported.

Discussions of the radiation chemistry of inorganic systems involved studies both in dilute solutions where abnormal oxidation and reduction states of metal ions were examined by pulse radiolysis techniques and in very concentrated solutions where considerable work is being done on effects of solutes on product formation. Studies on organic solutes focused around the oxidation of alcohols and other relatively simple oxygen-containing compounds (extensive work is in progress both in the Institute of Electrochemistry in Moscow and in the Department of Chemistry of the Byelorussian State University in Minsk). Papers were also presented on the radiolysis of aqueous solutions of both aliphatic and aromatic hydrocarbons. The sessions on biologically important systems were directed toward detailed examination of the products found in the radiolysis of solutions of various sugars, which are being studied in the Institute of Organic Chemistry in Moscow, and toward amino acids and proteins which are being studied in many of the Soviet laboratories.

All in all the symposium appeared to be very successful. As is usual for a conference of this type, considerable benefit was derived from the establishment of very fine personal contacts among the participants. The formal discussions of the presentations were somewhat limited due to lack of time but this seemed to be more than made up by extensive informal technical discussions during which the various scientists emphasized their common problems. While there may have been some reticence toward such informal discussion in cases where a language barrier existed, this reticence appeared to have been largely overcome by the assistance of many of the Soviet scientists who were able to act as interpreters.

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