

letters

Middle Eastern country (no names mentioned). The Indians in America know that no one has monopoly on extirpation of ethnic groups. Sometimes a subversive minority such as the deported Sudeten Germans in Czechoslovakia provokes a retribution which is justified. Emigrants returning to the USSR do not blame their repatriation on the anti-Semitism of Israelis. Should all ethnic minority problems be discussed in **PHYSICS TODAY**?

After renouncing their citizenship, the refusniks became ineligible for the positions of trust they held. An employee of Oak Ridge National Laboratory would likewise be fired if he renounced his American citizenship. Exceptions, such as employment of Klaus Fuchs at Los Alamos, require special international agreements. Today a dismissed expatriate physicist could still leave the country but when Admiral Inman's proposals become law he might not be.^{2,3} It is well known that Linus Pauling and aerodynamicist Hse-Shen Tsien of Caltech were denied passports when the government felt it would be prejudicial to its interests.⁴ Not a breeze of protest came from APS or the Academy of Sciences at that time.

Urging ostracism of Logunov,⁵ a member of the Soviet establishment, for failure to help the Brailovskys actively (whom he may consider inimically disposed toward the regime he cherishes) is as unrealistic as expecting the directors of the American national physics laboratories—who protest the refusniks' predicament—to grant research facilities to their American colleagues ousted from work in their profession for budgetary or political reasons. Charles Schwartz had to sue before he gained access to Lawrence Radiation Laboratory, a part of the university where he teaches. Photographs of him being manhandled by the university police on another occasion looked as brutal as any beating Sakharov reportedly sustained from the KGB when he tried to meddle in the Orlov trial. Schwartz, too, had problems in getting a forum in **PHYSICS TODAY**.⁶

Emigration from the communist countries is generally allowed only if (1) it is not prejudicial to the government and (2) the applicant has settled all his outstanding obligations to the society. The Soviets hold that the refusniks have not met these conditions.

The dissident agitation in which refusniks, as a rule, became active only after they lost their comfortable positions would of itself pose no threat to the Soviets. There is, however, the following problem with unrestricted emigration.

If members of a given group could leave the USSR at will, every Soviet citizen would eventually have to enjoy the same right. Most likely to leave would be those who find the Soviet system intolerable—the dissidents. Dissident activities would escalate if it were known that one could leave the country when things become too hot. Once the Soviet government relinquished absolute control over its citizens it could not continue to exist in its present form—it would become an entirely different government. No government is willing to change.

Brailovsky is said to have spoken ill of the Soviets⁷ who feel that he would continue to do so were he allowed to leave. In the Soviet law there is a basis for detaining him. *Dura lex, sed lex*. Brailovsky and his friends may be fine fellows in the eyes of those who have no use for the Soviet system but the Soviets do not see him in this light. They think that giving dissidents a forum would be disgraceful. Sounds familiar?

References

1. M. Gleiser, *Harpers Magazine*, September 1974, page 68; R. J. Yaes, *The Center Magazine*, May/June 1975, page 55; V. Bevc, *The Christian Science Monitor* 71, February 15, 1979.
2. S. H. Unger, *Technology Review*, February/March 1982, page 31.
3. **PHYSICS TODAY**, June 1982, page 49; *Science News*, 122, 148 (1982).
4. L. Pauling, **PHYSICS TODAY**, December 1978, page 81.
5. E. Callen and J. Goldman, **PHYSICS TODAY**, August 1982, page 76.
6. C. Schwartz, letter to members of the Council of the APS, 18 October 1974.
7. J. L. Lebowitz, **PHYSICS TODAY**, May 1981, page 11.

VLADISLAV BEVC
Syngery Research Institute
San Ramon, California

10/82

History of CP violation

In July (page 38) James Cronin recalls his recollections of the discovery of CP violation in 1964. Those recollections, while perhaps having been dimmed by time, do not today accurately reflect the true and total picture of the events that took place at that time. In particular, they totally disregard the important contributions made by me and by my colleagues at the University of Illinois in the discovery. This is especially surprising since Cronin, in his report to the 1965 International Conference on Weak Interactions held on 25–27 October 1965 at Argonne National Laboratory, begins his talk with the statement, "The discovery^{1,2} of the decay mode $K_2^0 \rightarrow \pi^+ \pi^-$ is most naturally interpreted as a violation of CP

Meeting Your CAMAC Needs!

Process temperature monitoring
Laboratory testing
Experiment testing
Environmental temperature monitoring

3570
4-CHANNEL
SENSOR INTERFACE

Four independent channels

Asynchronous channel scanning

150-microsecond scanning time

Scanning start/stop via Dataway command

RTD, strain gage, and other variable resistance inputs

Adjustable current excitation per channel

Input protected to 130 volts RMS

Optional bridge network

Ask about the new **3570**

4-Channel Sensor Input

KineticSystems Corporation

11 Maryknoll Drive
Lockport, Illinois 60441
(815) 838 0005

3 Chemin de Tavernay
1218 Geneva, Switzerland (022) 98 44 45

Circle number 60 on Reader Service Card

He who delays ...can save.

**Modular flexibility is
a money-saving
advantage of
Maxwell's 500 Volt
delay generator.**

You can buy as few delay
modules as you want ...
and expand or change
your system as required
... with Maxwell
Laboratories' Model 40150
Delay Generator. Buying
only what you need as
you need it is a significant
cost advantage ...
here are others:

- NO EXTERNAL SHIELDING
- PRECISION; FAST RISE TIME
AND REPEATABILITY
- HIGH VOLTAGE OUTPUT
- PROTECTED CIRCUITS

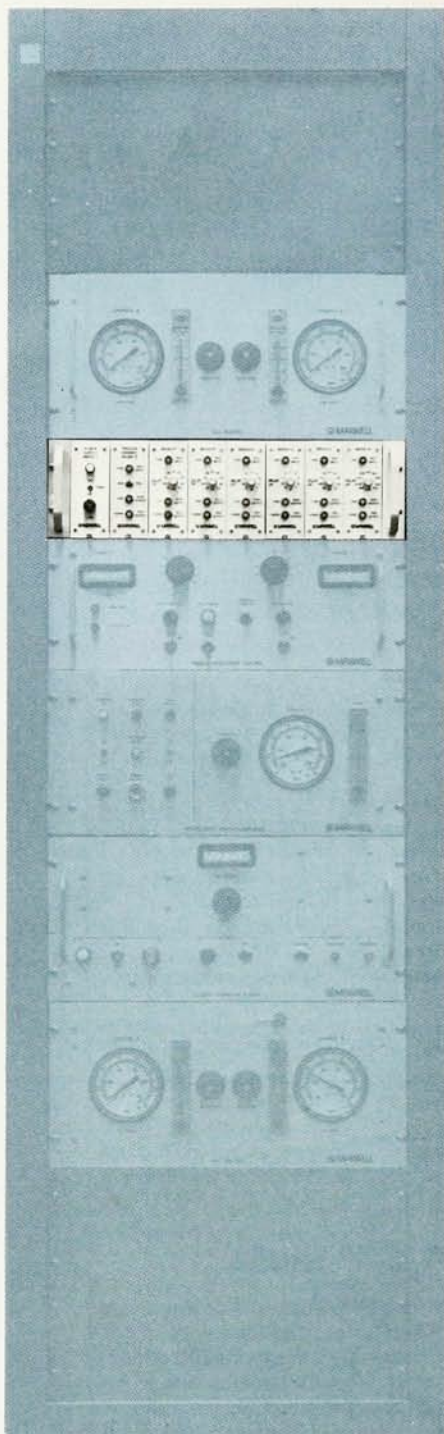
Call
**Jim DeVoss at
(619) 279-5100.**



MAXWELL®
MAXWELL LABORATORIES, INC.

8835 Balboa Ave., San Diego, CA 92123
Phone (619) 279-5100
TWX 910-335-2063

Representatives: United Kingdom, Alrad Instruments, (44) (635) 30345 Newbury, West Germany, Carl Baasel Lasertechnik
KG, (49) 089/527-051, Italy, dB-Electronic Instruments s.r.l., 6469341/2/3, Japan, Densho Kaisha, Ltd., (81) (3) 436-0041,
France, Optilas, (33) (6) 077 40 63, Holland, Optilas B.V., 01720-3 12 34.



letters

invariance." The footnotes 1, 2 are references to articles in *Physical Review Letters*, three issues apart, by the Princeton group and the Illinois group, respectively.

I believe that it should be widely recognized by the scientific community that I communicated by letter with Rene Turlay of the Princeton group our own results, *three weeks prior to the submission* by the Princeton group of their manuscripts to *Physical Review Letters*. I did this because of questioning by Turlay during the spring of 1964 on whether we were observing $K_2^0 \rightarrow \pi^+ \pi^-$ when I would see him during meetings and conferences. In my letter to Turlay, I suggested simultaneous publication of the two results; unfortunately Turlay did not respond for three weeks, at which he informed me that they had just submitted their manuscript.

It has always been a surprise to me that members of the Princeton collaboration have not, to my knowledge, been willing to admit to that communication, irrespective of whether it had an impact upon their own thinking and actions. It has been a further disappointment to me that over the years, members of the group have attempted to downplay the Illinois effort and to essentially re-write history by eliminating reference to the work.

Two years ago, I wrote a paper entitled "CP Violation, the Other View." I will be pleased to send a copy to any individual interested in understanding more completely the history of the discovery of CP violation.

ALEXANDER ABASHIAN

Virginia Polytechnic Institute and State
University

10/82

Blacksburg, Virginia

Nonhomogeneous kinetics

The dynamics of processes in nonrandom systems is an emerging subject in several areas of science, including physics, chemistry and biology. The subject may be called "nonhomogeneous kinetics." It has been applied to processes in radiation chemistry and in model cells (micelles and vesicles) and to structured systems as large as the cosmos. During the introduction of chemistry students to nonhomogeneous reaction kinetics I sometimes use the Shane-Wirtanen map of a million galaxies¹ as an illustration of a nonrandom distribution (a structured system). Although involvement with nonhomogeneous kinetics perhaps gives one an exaggerated awareness of system structure, it has led to the following comments on items that have appeared recently in *PHYSICS TODAY*.

The article by James Phillips on the