

Beta particles traced by photography process

The first photograph of the track of an invisible beta particle speeding from a single body cell has been made by medical scientists. This beta particle is an electron thrown out of a radio-active atom after being placed in a cell or tissue section by artificial methods.

Announcement of this achievement was made by scientists at the Atomic Energy project of the University of Rochester School of Medicine. It means that scientists studying growth and deterioration of tissue may now accurately locate single body cells which have absorbed a radioactive isotope.

This achievement is expected to widen the scope of radioactive tracer research in biology and medicine. Enabling scientists to learn more about the processes of the human body, radioactive tracers have been made plentiful and inexpensive through the development of atomic energy.

Results of the experiment are published in a report in "Science" by George A. Boyd, staff member of the Atomic Energy project, and Dr. Hilde Levi of Copenhagen, Denmark. The two scientists performed their experiments in Rochester last summer.

The photography process, called autoradiography, is in itself, not new. It was first discovered in 1896 when a French scientist laid a specimen of uranium sulfate on a pack of photographic plates. When developed, the plates showed a blackened area which later proved to have been produced by radiation from the uranium. This blackened photographic plate was the first autoradiograph.

Formerly, medical researchers were unable to pin down radioactive tracers to a single cell in a tissue section. They had no way of knowing exactly which cell contained the radioactive material and was sending out electrons. Using the new technique, scientists may now determine which individual cell is producing electrons.

Boyd and Dr. Levi used nuclear track photographic plates of selected sensitivity to electrons from radioactive carbon. A microscopic slice from the liver of a rat which had been given radioactive carbon was placed directly on a photographic plate. Electrons emitted from atoms in the liver cells bounded into the emulsion and exposed tracks of silver bromide grains.

After the plate was developed in the usual manner, a pattern of black silver grains showed the tracks of electrons through the emulsion. By examining this pattern under a high-power micro-

scope and tracing it back to the tissue, it was possible to determine from which cells the electrons started.

Biologists and medical scientists hope to use the new technique to learn the effects of organic and inorganic substances on individual cells to which radioactive tracers have been added.

Foreign students plan exposition on native customs

A novel series of informal talks on the customs, political situations, and folklore of foreign countries is being planned by the Foreign Students Association. The discussions, which will be led by members of the association, will be open to all students, FSA President Jose O. Jaramillo stated.

"American students can get a picture of other nations that they would not see as tourists. We heartily invite them to attend our meetings," Jaramillo, a native of Lima, Peru, said.

Dates and places of meetings will be announced in Technology News and Newsletter.

Techmen Talk

QUESTION:

"What is your reaction to the new grade point system?"

By Paul Mandelstein

John Gradle, EES:

"The minimum grade point average should be lowered to 1.8, because 1/6 of the students on probation is a pretty high percentage.

Although, as has happened in past semesters, the number of students on probation will diminish until there is a proper equilibrium between

probationers and non-probationers, a study of the grade point system might show a need to reduce even more the point average necessary to stay off probation. I don't think it will hurt the school's standing to any perceptible degree if it lowers the grade point average requirements. It might be interesting to see if the number of students on probation will really drop as it has in the past, considering that in former semesters there was an unfair non-cumulative grade point average system."

William Baumgartner, MES:

"At first thought the new four-point system was supposed to help students. After seeing 500 students

put on probation, I think this system is really too rough. I haven't found anyone who likes it and I'm sure the rest of the fellows on the track team will echo my views since we lost some good men. The Institute would do well to lower the required average to 1.8, although anything lower than this would be objectionable. Some departments have fixed percentages of flunks per class, and this presents a real contribution to the number on probation."

Robert Richter, CES:

"I really don't have a clear-cut opinion as to this new grade point system, because I have never had trouble with grades. I don't think that this four-point system is bad even though too many students are on probation. This number will adjust itself in the coming semesters. Possibly one reason for numerous students being on probation lies in the administrative policy of weeding out some students.

John Chrystal, IES:

"This new grade point system makes it hard on those who have E's and a little easier for those who have D's. This system is more fair, but I like the three-point system because, in general, it is not as tough. Dropping grade point requirements is all right, but if entrance requirements were such that only those capable of handling the work were admitted, then a grade point reduction would not be necessary.

STUDENT AND FACULTY FLIGHTS to EUROPE

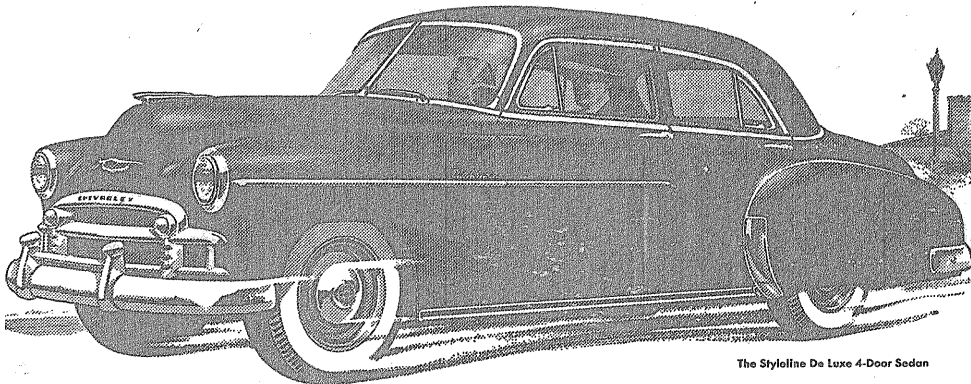
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tech timetable

Items appearing in Tech Timetable are those which have been scheduled with the Dean of Student's office.

FRIDAY, MARCH 17

English department, 1 p.m., NU aud.
Dean's Kaffeeklatsch, 4 p.m., Exec. conf. room
Chess club, 4 p.m., SU lounge

MONDAY, MARCH 20

Placement, 9 a.m., NU aud. and Dean's conf. room
EE club, 3 p.m., 131MC
TFU, 4:30 p.m., Exec. conf. room
Campus Players, NU aud., 5 p.m.
Delta Lambda Xi, 5 p.m., NU lounge
Newman club, 5 p.m., MC conf. room
Rho Epsilon, 5 p.m., 131MC
IPC, 5 p.m., 103MC

TUESDAY, MARCH 21

Operations council, 9 a.m., Exec. conf. room
AICHE, 1 p.m., 102MC
EE club, 1 p.m., 103MC
Campus Players, 1 p.m., NU aud.
Freshman Health class, 1 p.m., 302M
IRE, 1 p.m., 101MC
Office Services, 4 p.m., 131MC
Food Technology, 5 p.m., 115CB and 131MC

WEDNESDAY, MARCH 22

Placement, 9 a.m., Exec. conf. room
AIEE chorus, 12 p.m., NU aud.
Newman club, 5 p.m., 302M
Pi Tau Sigma, 5 p.m., 352
Middlemen club, 8 p.m., NU lounge
Sigma Xi, 8 p.m., 115CB

THURSDAY, MARCH 23

ACS, 1 p.m., 101MC
AIEE, 1 p.m., 115CB
Campus Players, 1 p.m., NU aud.
IAS, 1 p.m., 302M
Record concert, 1 p.m., 131MC
Mechanics seminar, 4 p.m., 101MC
Food Technology club, 5 p.m., Exec. conf. room
ASCS, 7 p.m., NU lounge

FRIDAY, MARCH 24

Chess club, 4 p.m., SU lounge
Dean's Kaffeeklatsch, 4 p.m., Exec. conf. room
Marketing club, 4 p.m., 302MC
IVCF, 5 p.m., 302AE