

**CRITICAL PHENOMENA IN CARBON DIOXIDE.** 16mm, color, sound, 8 min. Shows some of the striking phenomena observed in macroscopic matter when a fluid such as carbon dioxide passes through its gas-liquid critical point. Critical phenomena are dramatic manifestations of fundamental properties of matter and near the critical point, the properties of substances are very sensitive to temperature. Observation thus created a need for accurate temperature measurement techniques. Audience: physical scientists, college level physics and chemistry students. Free loan from Office of Technical Information and Publications, Room B08, Administration Bldg., National Bureau of Standards, Washington, D.C. 20234.

**FUNCTION.** 16mm, b&w, sound, 4 films 20 min each. There are countless situations in which two or more quantities are interrelated. The relation itself may be anything from a correlation revealed by a scatter diagram to a more precisely defined functional relation. These films explore a range of relations derived from real-life situations, arranged so that as the film progresses, the conditions governing the relations become more restricting. A number of mathematical concepts, such as variable, continuity, limit and inequality, are introduced and discussed. Titles of films are: "Dependence," "Inequality," "Restricted Areas," and "On The Line." Audience: high school and up. Purchase \$120 each or rental \$12 each from Time-Life Films, 43 West 16th St., New York, N.Y. 10011.

**SOLUTIONS.** 16mm, color, sound, 12½ min. What is a solution? A mixture of lead oxide and water leaves a residue as it passes through a filter, but a solution of copper sulfate passes through unchanged. What does this test indicate about the size of particles in the copper sulphate solution? Why does a light beam scatter as it passes through some mixtures and not others? As a sugar lump dissolves in water, how can its decrease in volume be explained? Many experiments are performed to help explain the special kind of mixture called a solution. Audience: high school. Purchase \$150 or rental \$9 from Bailey-Film Associates, 11559 Santa Monica Blvd., Los Angeles, Calif. 90025.

**SWITZERLAND: A STORY OF ACCOMPLISHMENT.** 16mm or super 8mm, color, sound, 19 min. Switzerland, a tiny landlocked country, lacks those traditional resources necessary for a successful industrial country. Yet without coal, oil, tin, iron, copper, zinc, sulfur and other natural resources, the country continues to flourish and to compete profitably in world markets. Film shows how the country's most valuable natural resource is its six million people, and how they help to produce some of the world's finest domestic and luxury items. Audience: high school. Purchase 16mm \$264 or super 8mm \$211 from Universal Education and Visual Arts, 221 Park Ave. South, New York, N. Y. 10003.

*Listing is for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.*

**Turn off the snow**

As a meteorologist who has followed with intense interest the progress of the last 20 years in weather modification, I am intrigued by Dr. Kahan's hope to increase snowpack accumulations by 50 percent (SN: 4/11, p. 365), followed by the statement, "Once the level has been reached, seeding there will be cut off to avoid any danger of causing a flood threat." How is nature to be removed from the snow process, after seeding has been stopped, if nature decides to continue snowing? At what point, or points, in the season will a 50 percent above normal level be acceptable? It seems to me that these questions require answers even if we gain knowledge that the desired increases can be achieved.

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*(Seeding would be terminated when snowpack accumulation reaches 150 percent of the long-term average for the particular time [March, April or May]. The records show that below this point there is virtually zero danger of flooding. Dr. Kahan doubts that seeding induced-increases beyond 15 percent in snow cover are feasible. Ed.)*

**Addiction on dependence**

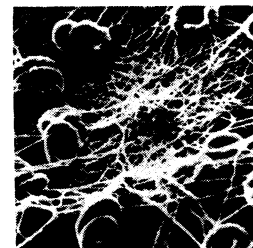
It is interesting to note that after all the propaganda by Leary et al. that marijuana is "non-addictive," the Hughes bill is reported (SN: 4/4, p. 339) to provide "that a person arrested for a drug misdemeanor, such as first-offense possession of marijuana, would not be prosecuted if he were found to be drug-dependent."

Perhaps it would be of help to the "pot generation" to point out that when

its liberal mentors say marijuana is "non-addictive" they use the word in a narrow sense and that their euphemism "psychologically habitforming" is the same thing from a practical standpoint—"drug dependence."

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*(Psychological dependence is defined as the continued use of any drug for non-medical reasons. The proposed bill thus would seem to make it quite easy for an accused marijuana-smoker to demonstrate a psychological dependence. Perhaps this wording was a deliberate effort on the part of the framers of the legislation to prevent mass prosecutions. Ed.)*



*(The picture that appeared on the cover of Science News for April 11, 1970, was inadvertently published without authorization and improperly credited. Credit for the photograph belongs to Dr. N. F. Rodman Jr., associate professor of pathology at the University of North Carolina at Chapel Hill. Ed.)*

*Dr. Rodman's scanning electron microphotograph is of a mass of fibrin fibrils and red blood cells from normal native human blood exposed to a poly [vinyl chloride] surface for 10 minutes.)*

**SCIENCE NEWS**

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