

static generator atom-smasher. Out of the two tritons' exploding and combining come one atom of ordinary helium and the dineutron, which lives for a very short time and then becomes two ordinary neutrons. Although a considerable amount of energy is released, this is not believed to be the most likely of the reactions that would be used in the hydrogen or H-bomb.

An unannounced group at the bomb laboratory, represented by Harold M. Agnew, told the American Physical Society in Washington about this discovery.

Tritium is made in atomic piles, competing with plutonium manufacture needed

for fission or A-bombs. It is three times the weight of ordinary hydrogen. It is radioactive and decays when left to itself, half of it disappearing in about 30 years.

The dineutron, now proved to exist, is analogous to double-weight hydrogen or deuterium weighing the same.

A strange new kind of heavy helium, mass five instead of the usual four, has been found in the tritium-tritium reaction by scientists at the Canadian atomic energy laboratories at Chalk River. Helium five decays into ordinary helium and a neutron shortly after formation.

Science News Letter, May 13, 1950

States Technical Conference on Air Pollution.

"I would not have you conclude that city air causes cancer in man," Dr. Scheele said. He reported, however, that a single injection below the skin of these soluble tar particles produced malignant tumors (cancer) in mice.

The substances were collected from the air in streets, homes, offices and schools. Analysis at the Public Health Service's National Cancer Institute "have at least raised serious questions as to the role of community air pollution in the causation of cancer," Dr. Scheele stated.

Science News Letter, May 13, 1950

ENGINEERING

Smog Control Advantages

➤ A LESSON for other cities is contained in the accomplishments of Los Angeles during the past few years in lessening the eye-and-throat irritation caused by chemical wastes in atmospheric smog. Salvaging the chemicals, in the industrial plants where made, is producing valuable products.

Some 822 tons of sulfur dioxide formerly entered the Los Angeles atmosphere each day, the American Society of Civil Engineers was told by Gordon P. Larson, director of the Los Angeles County Air Pollution Control District. Sulfur is now being produced in one plant at the rate of 50 tons a day from gases that were formerly burned to produce 100 tons of sulfur dioxide in the atmosphere.

The sulfur dioxide in the Los Angeles overcast condition known as smog is released by refineries, chemical plants and the burning of fuel oil by other industries. Coal is not to blame since not much coal is used in the region. The sulfur chemical quickly oxidizes in the air to form sulfuric acid. It is the acid that is particularly irritating to human eyes and throats.

In the two years since the pollution control drive began, sulfur dioxide pollution

has been much lessened, Mr. Larson indicated. At the beginning of the drive some 100 tons of metallic oxide fumes were being discharged into the air.

Dusts and oil mists add their share to the pollution from rock processing plants, milling, coffee roasting, manufacturing of roofing materials and paint spraying operations, he said. The total number of all sources amounts to many thousands.

Control is by voluntary action on the part of industries, or by court action. Over 300 violators a month are being cited in the drive to eliminate Los Angeles smog, he stated.

Science News Letter, May 13, 1950

MEDICINE

Tar in Air May Cause Cancer

➤ A POSSIBLE cause of cancer may be particles of tar which constitute 10% of the dust in ordinary city air, Dr. Leonard A. Scheele, Surgeon General of the U. S. Public Health Service, said at the United

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What is the mystery disease which is being treated by cortisone? p. 290.

What is the score for ACTH in TB treatment? p. 295.

What method is now being used to detect cancer of the stomach? p. 291.

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