

# SCIENCE

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## PROGRESS IN PETROLEUM<sup>1</sup>

By Dr. GUSTAV EGLOFF

RESEARCH LABORATORIES OF THE UNIVERSAL OIL PRODUCTS COMPANY, CHICAGO, ILLINOIS

CRUDE petroleum range from almost pure gasoline to solid asphalt as produced in the oil fields of the world. They have odors ranging from the rose and musk to a vileness greater than the skunk. Their colors when viewed in transmitted light vary from cherry, amber, yellow, green and reddish-brown to dense black, and under reflected light some crudes are highly fluorescent. Crude oils are composed of paraffinic, olefinic, naphthenic and aromatic hydrocarbons. Many crudes contain sulfur in combination with the hydrocarbons—in amounts from traces to more than six per cent.—while nitrogen and oxygen varies from 0.1 to more than one per cent. Traces of metals such as platinum, gold, silver, uranium, vanadium and

<sup>1</sup>Address on the occasion of the presentation of the Medal Award of the American Institute of Chemists at its eighteenth annual meeting, Atlantic City, N. J., May 18, 1940.

titanium have been found in some crude oils. A few Rumanian crude oils are highly radioactive.

Crude oils are literally a wonder source of substances that are the foundation stone of a number of industries with many more to come. Their effect ramifies throughout our social and economic life and they will be a controlling factor in ultimate victory in a world aflame.

A forward-looking group of executives, chemists, physicists, engineers, and a host of other professions have made the oil industry what it is—a \$14,000,000,000 organization in the United States. An amazing amount of research is going on in every branch of the industry at an expenditure of over \$100,000,000 a year in order to discover and transport crude oil to refining centers for conversion into products useful to man.

The oil industry is doing everything possible to locate

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