

What's New in . . .

SCIENCE

By LOU REINAGEL

Canisius is the recipient of a scientific instrument donated by the Universal Oil Products of Des Plaines, Illinois. The instrument, a Ramen infra-red spectrophotograph, operates on a principle developed by Ramen, a native of India.

It can be used in conjunction with our existing infra-red spectrophotograph for the purpose of obtaining more complete analysis of compounds under study. This combination of instruments will prove to be a great asset in our studies of molecular structures of complex compounds.

The fifty-five hundred grant was received from the Gas Chromatography Institute for the purposes of furthering the studies and techniques in the field of compound separation. Half of this grant will go toward the purchase of a gas chromatograph for use in our institute. The gas chromatograph is able to separate compounds which are extremely similar.

By forcing a liquid through a column about ten feet long under a sufficient pressure the resulting liquid will contain almost a pure concentration of the desired compound. The "heavier" compounds will flow first, followed by increasingly "lighter" compounds. Taking the portion of the fluid where the desired compound is found, this same portion can be processed indefinitely by forcing

it through the column again and again until the purity of the sample approaches 100 per cent. This machine can do the work of a much more costly 100-foot column of the fractional distillation apparatus.

The gas chromatograph was a highly desired instrument in the Second World War, when two close types of uranium isotopes were found in one sample. The separation of the two was imperative for use of either type; yet without the gas chromatograph this was almost impossible. The gas chromatograph did not appear on the scene in practical application however, for several years and, for us, not till now.

In the field of gas chromatography, Canisius has again received great recognition for its work in instructing students and in research. This April, the Gas Chromatography Institute will meet at Canisius College for the third consecutive year. This symposium will last an unprecedented three days featuring the exposition of Canisius' development the field and applications in research and industry.

Behind the increasing tempo of Canisius achievements in all fields of analytical chemistry lies the student factor. Each year the Chemistry Department here is opening newer and more interesting fields to undergraduates and post-grads alike.