Giulio Natta
Facts

Photo from the Nobel Foundation archive.

Giulio Natta
The Nobel Prize in Chemistry 1963

Born: 26 February 1903, Imperia, Italy

Died: 2 May 1979, Bergamo, Italy

Affiliation at the time of the award: Institute of Technology, Milan, Italy

Prize motivation: "for their discoveries in the field of the chemistry and technology of high polymers."

Prize share: 1/2

Work

Synthetic materials like plastics are common in today's world. Plastic consists of very large molecules comprised of long chains of smaller molecules. After Karl Ziegler developed a method for creating these molecular chains using catalysts - substances that hasten the chemical process without affecting the end-products - Giulio Natta developed it further. In 1955 he discovered a catalyst that formed molecular chains with their parts oriented in certain directions. This made it possible to produce rubbery and textile-like materials.

Giulio Natta More

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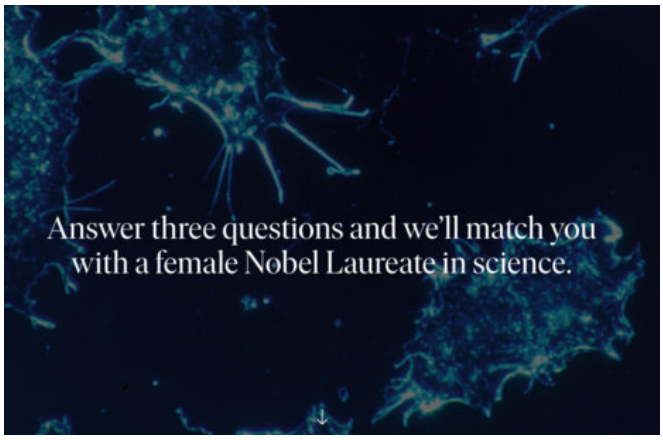

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Chemistry

- 1963 +

Explore

Giulio Natta
Biographical

Giulio Natta was born at Imperia on February 26, 1903. He graduated in Chemical Engineering at the Polytechnic of Milan in 1924 and passed the examinations entitling him to teach there in 1927. In 1933 he was established on the staff of Pavia University as a full professor and at the same time was appointed director of the Institute of General Chemistry at that University, where he stayed till 1935, that is until he was appointed full professor in physical chemistry at the University of Rome. From 1936 to 1938 he was full professor and director of the Institute of Industrial Chemistry at the Polytechnic of Turin. He has been full professor and director of the Department of Industrial Chemistry at the Milan Polytechnic since 1938.

Now a world famous scientist, Prof. Natta began his career with a study of solids by means of X-rays and electron diffraction. He then used the same methods for studying catalysts and the structure of some high organic polymers (the latter from 1934). His kinetic research on methanol synthesis, on selective hydrogenation of unsaturated organic compounds and on oxosynthesis led to an understanding of the mechanism of these reactions and to an improvement in the selectivity of catalysts.

In 1938 Prof. Natta began to study the production of synthetic rubber in Italy; he took part in research work on butadiene and was the first to accomplish physical separation of butadiene from 1-butadiene by a new method of extractive distillation.

In 1938 he began to investigate the polymerisation of olefins and the kinetics of subsequent concurrent reactions. In 1953, with financial aid from a large Italian

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