

Prof. Dr. Karl Alexander Müller



Alex Müller studied at the Eidgenössische Technische Hochschule (ETH) in Zurich and obtained his Dr. sc. nat. degree in 1958 with a thesis devoted to a special problem of solid state physics. In 1959 he was appointed head of a newly formed magnetic resonance research team at the Battelle Memorial Institute, Geneva. Here, he collected the material for his paper on "nuclear magnetic resonances in neutron-irradiated graphite monocrystals", with which he habilitated in solid state physics at the University of Zurich in 1962.

A few months later he joined the IBM Research Laboratory at Rüschlikon/Zurich as a member of the scientific staff, and was promoted Head of the Physics Department in 1973.

In 1971 he became appointed Professor from the University of Zurich.

Since 1982, Alex Müller has held the privileged position of an IBM Fellow, which grants him complete freedom in all his research decisions, much in the same way as it is enjoyed by senior scientific staff in the German Max Planck Institutes.

His studies on the Physics of structural phase transformations in solids had earned him world-wide recognition by the 1970ies.

During a prolonged stay at IBM's Yorktown Heights facility, a specific assignment induced him to combine microwave absorption and superconductivity. As a result he turned to fine-grained ceramic mixed oxide systems; in this field, he and his co-worker Johannes G. Bednorz succeeded in breaking the "sound barrier of transition temperatures" of -250°C and discovered the first "high-temperature" superconductor.

In 1987, Müller and Bednorz were awarded the Nobel Prize for Physics "for their important breakthrough in the discovery of superconductivity in ceramic materials".

