**Brief Curriculum Vitae**

# Professor **Stanisław Kielich**

( 1925-1993 )

Born: 10 November 1925, Czempiń, Poland

1955, Graduated in Physics from Uniwersytet Poznański
1961, PhD in Physics (Supervisor A. Piekara)
1964, Habilitation
1971, Extraordinary professor
1976, Ordinary professor
1983, Member of the Polish Academy of Sciences

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| 1955-1959 | Assistant - Department of Dielectrics, Institute of Physics of the Polish Academy of Sciences, Poznań |
| 1959-1966 | Adjunct (than docent) - Department of Dielectrics, Institute of Physics of the Polish Academy of Sciences, Poznań |
| 1966-1969 | Head of the Department of Molecular Physics, Adam Mickiewicz University, Poznań |
| 1969-1975 | Director of the Institute of Physics, Adam Mickiewicz University, Poznań |
| 1970-1972 | Invited Professor, University of Bordeaux, France. |
| 1973-1993 | Head of the Nonlinear Optics Division, Adam Mickiewicz University, Poznań |

He had more than twenty PhD students. Four of his students are University Professors now.

Professor Stanisław Kielich authored more than three hundred scientific papers. He is considered to be one of the founders and leading experts in nonlinear optics, with forty years of continuous research work in the subject.

Books:
1. **Molecular Nonlinear Optics**, PWN, Warsaw-Poznań, 1977 (Russian translation, Nauka, Moscow, 1981)
2. **Laser-Molecule Interaction: Laser Physics and Molecular Nonlinear Optics** (with J. R. Lalanne and ADucasse) (Wiley, 1996)
2. Co-editor (with Myron Evans) of the three volumes of **Modern Nonlinear Optics** (Wiley, New York, 1993)

Selected awards:
1. Marian Smoluchowski Medal (1983)
2. Cross of Merit (1976, 1983)

Member of the Editorial Board of:
1. Journal of Raman Spectroscopy - since 1973.
2. Le Journal de Physique (1980-1983).
3. Optica Acta (1982-1985)
4. Quantum Optics (since 1993)

## Main subjects of his research activity

1. Statistical molecular theories of electric, magnetic, and optical saturation (with A. Piekara).

2. Statistical-molecular theory of light scattering in simple fluids and multi-component mixtures, taking into account collision-induced changes in polarizability and hyperpolarizability.

3. New methods of Cartesian tensor approach to intermolecular multipolar interactions in electro-optical and magneto-optical phenomena. Optical activity.

4. Multi-photon light scattering. Cooperative hyper-Rayleigh light scattering (theory and experiment in cooperation with J.R. Lalanne in Bordeaux).

5. Nonlinear spectroscopy of macromolecular and colloidal systems. Langevin-Kielich functions.

6. Theoretical work in quantum-optics. Photon anti-bunching and squeezed states of the electromagnetic field.