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Harry Pfeifer

Harry Pfeifer (* 25. Feb 1929 in Penig; † 28. Septembre 2008 in Leipzig) was a german Physicist.



Harry Pfeifer (1979)

Leben

After attending elementary school in Penig (1935 to 1939) and the state high school in Waldenburg (1939 to 1947, high school diploma in 1947), Harry Pfeifer studied physics from 1947 to 1951 Leipzig University. His academic teachers were among others. a. Waldemar Ilberg, Bernhard Kockel, Ernst Hölder, Herbert Staude and Leopold Wolf. In his diploma thesis „On the pendulum feedback receiver and the observation of magnetic nuclear resonances“ (1951), see the figure on nuclear resonance spectrometers, he dealt with the observation and measurement of the first nuclear magnetic resonance (NMR) signals in Germany.[1][2][3] Together with Artur Lösche Harry Pfeifer laid the foundations for intensive development and broad application at the Physics Institute at the University of Leipzig High frequency spectroscopy in various areas of physics, later also chemistry, medicine and biology.



First nuclear resonance device

In 1953 Pfeifer received his doctorate with the thesis „Zum Rukopschen Problem“ (with Waldemar Ilberg) to Dr. rer. nat, with fundamentals of generating undamped electrical oscillations in parallel and series resonant circuits. In 1956 he completed his habilitation with the work „On the observation of magnetic nuclear resonances“. His early work on magnetic resonance is summarized in the monograph „Nuclear Induction“ by Lösche (1957).[4] After the issuance of the venia legendi In 1956 he was appointed lecturer in experimental physics in 1957, professor with a teaching position in 1960, professor with a full teaching position in 1964 and finally professor with a chair in experimental physics at the University of Leipzig in 1969.

Harry Pfeifer recognized very early on the great advantages of pulsed methods of nuclear magnetic resonance, fundamental work on multi-momentum methods and Diffusion measurements with Field gradient method provided and carried out extensive device developments in these areas. He initially dealt with investigations into the Hydration behavior in solutions diamagnetic And more paramagnetic Ions, later with structure and dynamic behavior of molecules in porous solids, especially Zeolites and other interface systems and made important contributions to the investigation of basic physical questions Adsorption And Catalysis. Over 300 publications provide evidence of his extensive research work. He was also interested in the application of the NMR to biological interface systems. More than 250 qualified physicists, 70 doctors and 20 university

professors emerged from his school.[5][6][7][8] Harry Pfeifer was a visiting professor at the university in 1975 Hanoi, 1981 at the Universite Pierre et Marie Curie in Paris and in 1983 at the Universidad Central de Venezuela in Caracas and worked on numerous editorial boards of scientific journals.

Trivia

Describes in her book 'Freedom Angela Merkel Harry Pfeifer as one of her physics lecturers, who, in addition to his professional reputation and international recognition, is also particularly remembered for his clear and consistent statements during his electronics lectures.[9]

Memberships and Features

- 1969–1991 Dean of the Faculty of Mathematics and Natural Sciences at the Karl Marx University Leipzig
- 1963–1994 Head of the Electronics Department or the NMR Laboratory or the Scientific Area of Experimental Physics or the Department of Interface Physics
- 1973–1990 Member of the Academy of Sciences of the GDR
- 1990–1994 Council of the International Society of Magnetic Resonance (ISMAR)
- 1991–1998 AA Zeolites of DECHEMA
- 1990–2008 AMPERE Grouping Committee (Atoms and Molecules by Radio-Electric Studies)

Distinctions

- 1969 National Prize of the GDR
- 1973 Leibniz Medal The Academy of Sciences of the GDR
- 1978 Gustav Hertz Prize The Physical Society of the GDR (with Jörg Kärger)
- 1984 Honored university professor in the GDR[10]
- 1986 D. W. Breck Award from the International Zeolite Association (IZA), Tokyo (with Dieter Freude, Jörg Kärger and Martin Bülow)
- 1989 Dr. rer. nat. c, Humboldt University Berlin

Writings (selection)

- *Electronic Noise, Volume 1* (1959), *Electronic Noise, Volume 2* (eds, 1968),
- *Electronics for the physicist* (7 volumes, 1970–1977),
- *Electronics internship* (eds, 3. Edition 1990, Spanish translation: Caracas 1988),
- *Textbook basic knowledge of experimental physics* (with H. Schmiedel, 1997),
- *Textbook compact course physics. With virtual experiments and exercises* (with H. Schmiedel and R. Stannarius, 2004).

Individual evidence

1. After the discovery of this method in the USA in 1946 Felix Bloch (1905–1983) with Hansen and Packard and Edward Mills Purcell (1912–1997) with Bloembergen and Pound in Europe, previous work on NMR was initially carried out in Great Britain (Bernard V. Rollin; J. Hatton)

see Bernard V. Rollin, Nature (London) 158 (1946) 669; B. V. Rollin, J. Hatton, Nature (London) 159 (1947) 201; J. Hatton, BV. Rollin, Proc. Royal Society (London) A 199 (1949) 222.

2. H. Pfeifer, The Early Years of NMR Spectroscopy in Germany, in Encyclopedia of Nuclear Magnetic Resonance, Vol. 1, Historical Perspectives, John Wiley and Sons, Chichester, New York 1996.
3. H. Pfeifer: A short history of nuclear magnetic resonance spectroscopy and of its early years in Germany, Magn. Reson. Chem. 37 (1999) 154.
4. A. Delete: *Nuclear induction*, German Publishing House of Sciences, Berlin, 1957.
5. Jörg Kärger, Dieter Michel: *Harry Pfeifer on his 70th birthday. Birthday*, Announcements and reports from the University of Leipzig, April 1999, issues 2-99, pp. 31–32, ISSN0947-1049 .
6. Douglas M. Ruthven, Dieter Michel, Dieter Freude, Jörg Kärger: *Still active in physics, Harry Pfeifer on his 75th birthday. Birthday*, journal Leipzig University, April 2004, Issue 2-2004, pp. 35, ISSN0947-1049
7. Jürgen Haase: *Formative figure in Leipzig physics, on the death of Harry Pfeifer on December 28th. Septembre*, journal University of Leipzig, December 2008, issue 6-2008, p. 32, ISSN1860-6709 .
8. *History of the University of Leipzig 1409–2009*, Volume 4, 2. Half-band, ISBN 978-3-86583-304-4, S. 1252, pp. 1256 et seq, pp. 1271, PP. 1272.
9. Angela Merkel, Beate Baumann:*Freedom: Memories 1954-2021*. Kiepenheuer & Witsch, Cologne 2024, ISBN 978-3-462-00513-4, S. 66–67.
10. Dirk Hubrich:*Award list for the honorary title of „Honored University Professor of the GDR“ from 1975 to 1989.* (https://www.deutsche-gesellschaft-fuer-ordenskunde.de/DGOWP/wp-content/uploads/2013/06/VL-VHL-1975-1989.pdf)German Society for Religious Studies,August 2013,accessed on 11.May 2026. (https://www.deutsche-gesellschaft-fuer-ordenskunde.de/DGOWP/wp-content/uploads/2013/06/VL-VHL-1975-1989.pdf)

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