

## Curriculum Vitae

- 31.10.1942** born in Halle/Saale (Germany)  
parents: Maximilian Freyland and Maria Freyland, born Mietzner
- 1962** Abitur at Grillo-Gymnasium, Gelsenkirchen
- 1962-1967** Study of Physics, University of Karlsruhe
- 1967-1968** Study of Biophysics, University of Heidelberg
- 1968-1972** PhD-Thesis in Physical Chemistry with Prof. Dr. E.U. Franck and Prof. Dr. F. Hensel, University of Karlsruhe, entitled:  
„Electronic conductivity and absolute thermoelectric power of fluid potassium at elevated pressure and temperatures up to 2400 K"
- 1972-1973** Assistant at the Institute of Physical Chemistry, University of Karlsruhe
- 1973-1988** Assistant and lecturer at the Institute of Physical Chemistry, University of Marburg
- 1974** Postdoc fellow with J. Jortner and U. Even, Tel-Aviv University, Israel
- 1980** Habilitation in Physical Chemistry, University of Marburg; title of Habilitation thesis: „Metal-nonmetal transitions in fluid alkalimetals and alkalimetal alloys"
- 1983** Visiting scientist with M. Blander, Argonne National Laboratory, and J.J. Egan, Brookhaven National Laboratory, USA
- 1983** Nernst-Haber-Bodenstein award of the Deutsche Bunsengesellschaft of Physical Chemistry
- 1988** Chair in Physical Chemistry, University of Karlsruhe
- 1993** Visiting Professor, University of Trondheim, Norway
- 2007** Member Karlsruhe Institute of Technology (KIT)

## Research activities:

1. High temperature-high pressure chemistry of electronically conducting fluids: electronic and microscopic structure, electron localization and electronic phase transitions in expanded fluid metals, metal-molten salt solutions and liquid alloys;
2. Rapidly quenched ionic liquids: transition from ionic to metallic glasses;

3. Interfacial phase transitions in fluids with short range interaction: wetting and prewetting transitions, surface freezing;
4. Electrodeposition from molten salts: growth kinetics and 1D-2D-3D phase formation studied with nanometer resolution (electrochemical - STM).

**Academic Administration:**

European Physical Society (EPS) Liquid Board member (1994-1999); Member of board of Deutsche Bunsengesellschaft of Physical Chemistry (1995-1999); Chairman of several international conferences (e.g. Phase Transitions at Interfaces, 1993; Euchem Conference Molten Salts, 1994; Thermodynamics of Alloys, 1998); Dean and vice-dean-of Faculty of Chemistry, University of Karlsruhe, (1996-2000); Co-editor of J. Phys. Chem., Ber. Bunsenges. (1993-1998); member of editorial board of J. Phys. Condensed Matter (1990-1994); Referee of German Science Foundation (DFG) and National Science Foundation USA (NSF) since 1990.