

Curriculum vitae

Born June 26, 1949 at Berchtesgaden, Germany; German citizen

1974 Diploma in Physics (University of Munich)

1975-1980 Scientist at Physik Department E15, Technische Universität München (TUM). Applications of nuclear resonance (Mössbauer effect) in solid state physics and pharmacy.

1979 Four months exchange scientist at Academy of Sciences of USSR, Institute of Chemical Physics, Moscow

1980-2017 Scientist at the research reactors FRM I and FRM II, TUM, at Garching/Munich.

Topics: Physical and biological dosimetry, applications of a fast neutron beam in cancer therapy, and technical applications.

Member of the “European Concerted Action on Boron Neutron Capture Therapy”

Supervisor of a number of master theses

Speaker at many international conferences. Guest talks at institutes in Moscow, Kyiv, Sao Paulo, Santiago de Chile, and Tomsk.

Author or co-author of about 80 publications.

1985-1989 Several trips for implementing Mössbauer equipment in China, Albania, Egypt, and Russia.

1989-2006 Additionally, radiation protection officer at FRM I and FRM II

1994-2005 Member of the controlling staff for the commissioning of the new high flux research reactor FRM II; especially concerning the fast neutron beam and radiation protection. Involved in PR work.

March 2004 First criticality of FRM II. Responsible for the new fast neutron beam at beam tube SR10. Mixed-field spectrometry, applications of fast reactor neutrons in biology and materials testing.

2007 – 2017 Appointed medical physics expert for fast neutron medical therapy at FRM II. In parallel scientific work, e.g., delayed and prompt neutron activation analysis using thermal and cold neutrons, fast neutron radiography, radiation biology, research on Boron Neutron Capture Therapy, and cooperation with industrial users.

2017 Retirement

since 2019 Member of Company r.e.m. (Radiation – Environment - Management)

since 2020

Co-Editor of the peer reviewed journal “Nuclear Engineering Progress, <https://nep.nstri.ir>

Publications (since 2012)

Rolf F Barth, MGraca H Vicente, Otto K Harling, WS Kiger III, Kent J Riley, Peter J Binns, Franz M Wagner, Minoru Suzuki, Teruhito Aihara Itsuro Kato & Shinji Kawabata.: Current status of boron neutron capture therapy of high grade gliomas and recurrent head and neck cancer. Radiation Oncology, 7(1):146, 2012, doi: [10.1186/1748-717X-7-146](https://doi.org/10.1186/1748-717X-7-146)

Franz M Wagner, Birgit Loeper-Kabasakal and Harald Breitzkreutz: Neutron medical treatment of tumours — a survey of facilities. Journal of Instrumentation, 7:C03041, 2012, doi: [10.1088/1748-0221/7/03/C03041](https://doi.org/10.1088/1748-0221/7/03/C03041)

Michael Jungwirth, Harald Breitzkreutz, Franz M Wagner und Thomas Bücherl: Determination of the photon spectrum in an intense fission neutron beam. Journal of Instrumentation, 7:C03022, 2012, doi: [10.1088/1748-0221/7/03/C03022](https://doi.org/10.1088/1748-0221/7/03/C03022)

Ernst Schmid, Franz M Wagner, Lea Canella, Horst Romm und Thomas E Schmid: RBE of thermal neutrons for induction of chromosome aberrations in human lymphocytes. Radiation and Environmental Biophysics, 52(1):113-121, 2013

Franz M. Wagner, Hanno Specht, Birgit Loeper-Kabasakal und Harald Breitzkreutz: Fast neutron therapy: a status report. Siberian Journal of Oncology, 2015 (in russian)

Specht HM, Neff T, Reuschel W, Wagner FM, Kampfer S, Wilkens JJ, Petry W and Combs SE: Paving the road for Modern Particle Therapy – What can We learn from the experience gained with Fast neutron Therapy in Munich? Front. Oncol. 5:262 (2015), doi: [10.3389/fonc.2015.00262](https://doi.org/10.3389/fonc.2015.00262)

Elham Bavarnegin, Yaser Kasesaz, Franz M. Wagner: Neutron beams implemented at nuclear research reactors for BNCT. JINST12 P05005 (2017), available online in www.sciencedirect.com

MJ Mühlbauer, T Bücherl, C Genreith, M Knapp, M Schulz, S Söllradl, FM Wagner, H Ehrenberg: The Thermal Neutron Beam Option for NECTAR at MLZ. 8th International Topical Meeting on Neutron Radiography, ITMNR-8, 4-8 September 2016, Beijing, China - in: Physics Procedia (2017)

Dania Awad, Samer Younes, Matthias Glemser, Franz M Wagner, Gerhard Schenk, Norbert Mehlmer, and Thomas Brueck: Towards high-throughput optimization of microbial lipid production: from strain development to process monitoring. Sustainable Energy & Fuels, Royal Society of Chemistry (2020), doi: [10.1039/d0se00540a](https://doi.org/10.1039/d0se00540a)