

PERSONAL INFORMATION Professor Dr.phil. Dr.h.c. Harald W. Weber

WORK EXPERIENCE Superconductivity
 Low Temperature Physics
 Radiation Effects
 Materials Science

1 January 2015 - present	Professor Emeritus Vienna University of Technology, Atominstitut, Vienna, Austria
1 January 2013 – 31 December 2014	Part time contract and Professor Emeritus Vienna University of Technology, Atominstitut, Vienna, Austria
1 October 2005 – 30 September 2009	Professor and Institute Director Vienna University of Technology, Atominstitut, Vienna, Austria
1 July 1981 – 30 September 2012	Professor Vienna University of Technology, Atominstitut, Vienna, Austria

EDUCATION AND TRAINING

1 July 1981 – 30 September 2012	Professor for Low Temperature Physics Vienna University of Technology, Atominstitut, Vienna, Austria
1 July 1975 – 30 June 1981	University Lecturer (Univ.-Dozent) Vienna University of Technology, Atominstitut, Vienna, Austria
1 May 1968 – 30 June 1975	University Assistant, PhD summa cum laude (29 April 1969) Vienna University of Technology, Atominstitut, Vienna, Austria (PhD, University of Vienna)

ADDITIONAL INFORMATION

Professional Interests	Low Temperature Physics, Superconductors, Superconducting Magnets, Materials for Superconducting Magnets Board Member of ICMC (International Cryogenic Materials Commission) Founding Member of the F4E Governing Board (Austrian representative) Head of Research Unit (Austrian EURATOM Association) Austrian Delegate at CCEFU Austrian Delegate at EFDA Steering Committee
Projects	Numerous EFDA projects for the development of radiation hard insulating materials for fusion magnets ITER IO contracts for the qualification of the TF coil insulation for the ITER magnets CERN contracts for the clarification of the radiation response of commercial state-of-the-art Nb ₃ Sn superconductors
Memberships	Austrian Physical Society Austrian Society for Nuclear Technology Austrian Chemical-Physical Society American Institute of Physics Institute of Physics London

Publications and Patents

R. Prokopec, K. Humer, R.K. Maix, H. Fillunger, H.W. Weber: Fus. Eng. Des. 85, 227-233 (2010) "Characterization of advanced cyanate ester / epoxy insulation systems before and after reactor irradiation"

H. Leeb, F. Aumayr, G. Badurek, M. Benedikt, M. Hajek, E. Jericha, P. Kienle, M. Krammer, J. Marton, E. Widmann, H.W. Weber: IAEA-13-CN-173, ISBN 978-92-0-150410-4, AP/IA-10, 1-8 (2010) "Opportunities of basic and applied research at MedAustron"

R. Prokopec, K. Humer, H. Fillunger, R.K. Maix, H.W. Weber: Adv. Cryog. Eng. 56, 119-126 (2010) "Property changes of cyanate ester / epoxy insulation systems by an ITER-like double impregnation and by reactor irradiation"

R. Prokopec, K. Humer, H. Fillunger, R.K. Maix, H.W. Weber: Adv. Cryog. Eng. 56, 155-161 (2010) "Mechanical characterization of the ITER mock-up insulation after reactor irradiation"

M. Kulich, P. Kovac, M. Eisterer, I. Husek, T. Melisek, H.W. Weber, W. Häßler: Physica C 469, 827-831 (2009) "Effect of C and SiC additions into in situ or mechanically alloyed MgB₂ deformed in Ti sheath"

M. Eisterer, R. Fuger, M. Chudy, F. Hengstberger, H.W. Weber: Supercond. Sci. Technol. 23, 014009-1-6 (2010) "Neutron irradiation of coated conductors"

M. Zehetmayer, M. Eisterer, H.W. Weber, J. Jiang, J.D. Weiss, A. Yamamoto, A.A. Polyanskii, E.E. Hellstrom, D.C. Larbalestier: Physica C 470, S452-453 (2010)
"Disorder induced effects on the superconducting properties of iron pnictides introduced by neutron irradiation"

R. Fuger, M. Eisterer, S.S. Oh, H.W. Weber: Physica C 470, 323-325 (2010) "Superior properties of SmBCO coated conductors at high magnetic fields and elevated temperatures"

M. Chudy, M. Eisterer, H.W. Weber: Physica C 470, 1300-1303 (2010) "Asymmetric angular dependence of J_c in coated conductors prior to and after fast neutron irradiation"

M. Eisterer, M. Zehetmayer, H.W. Weber, J. Jiang, J.D. Weiss, A. Yamamoto, E.E. Hellstrom, D.C. Larbalestier, N.D. Zhigadlo, J. Karpinski: Supercond. Sci. Technol. 23, 054006 1-7 (2010) "Disorder effects and current percolation in FeAs based superconductors"

L.V. Potanina, V.I. Pantsyry, N.I. Kozlenkova, A.K. Shikov, V.Yu. Korpusov, I.N. Gubkin, N.I. Salunin, J. Ernhofer, M. Eisterer, H.W. Weber: Proc. ICEC 23 – ICMC 2010, ed. by M. Chorowski, J. Fydrych, A. Pietrowska-Hajnus, K. Strzelecka, Oficyna Wydawnicza Politechniki Wrocławskiej (2011), ISBN 978-83-7493-589-0, pp. 1205-1211
"The effect of Cu/nonCu ratio on the critical current density in model NbTi strands for the ITER PF coils"

J. Ernhofer, F. Hengstberger, M. Eisterer, H.W. Weber, S. Terzieva, W. Goldacker, N. Long: IEEE Trans Appl. Supercond. 21, 3389-92 (2011) "Current and field distribution in meandered coated conductors for Roebel cables"

M. Chudy, R. Fuger, M. Eisterer, H.W. Weber: IEEE Trans Appl. Supercond. 21, 3162-65 (2011) "Characterization of commercial YBCO coated conductors after neutron irradiation"

R. Prokopec, K. Humer, R.K. Maix, H. Fillunger, H.W. Weber, J. Knaster, F. Savary: Fus. Eng. Des. 86, 1436-1439 (2011) "Qualification of the resin for the ITER TF coil insulation"

F. Hengstberger, M. Eisterer, H. W. Weber: Supercond. Sci. Technol. 24, 045002 1-5 (2011)
"Magnetic measurement of the critical current anisotropy in coated conductors"

H.W. Weber: Int. J. Modern Phys. E 20, 1325-1378 (2011)
"Radiation effects on superconducting fusion magnet components"

M. Eisterer, R. Raunicher, H.W. Weber, M.R. Cimberle, E. Bellingeri, I. Pallecchi, M. Putti, C. Ferdeghini: Supercond. Sci. Technol. 24, 065016 1-6 (2011)
"Anisotropic critical currents in FeSe_{0.5}Te_{0.5} films and the influence of neutron irradiation"

M. Chudy, S.C. Hopkins, M. Wozniak, B.A. Glowacki, M. Eisterer, H.W. Weber: Supercond. Sci. Technol. 24, 075018 1-5 (2011) "Full angular critical current characteristics of coated conductors using a two-axis high current goniometer"

R. Prokopec, K. Humer, H. Fillunger, R.K. Maix, H.W. Weber, J. Knaster, F. Savary: Adv. Cryog. Eng. 58, 107-114 (2012) "Qualification of a cyanate ester epoxy blend supplied by Japanese industry for the TF coil insulation"

J. Veternikova, M. Chudy, V. Slugen, M. Eisterer, H.W. Weber, S. Sojak, M. Petriska, R. Hinca, J. Degmova, V. Sabelova: J. Fusion Energy 31, 89-95 (2012) "Positron annihilation lifetime spectroscopy study of neutron irradiated high temperature superconductors YBa₂Cu₃O_{7-δ} for application in fusion facilities"

T. Baumgartner, M. Eisterer, H.W. Weber, R. Flükiger, B. Bordini, L. Bottura, C. Scheuerlein: IEEE Trans. Appl. Supercond. 22, 6000604 1-4 (2012) "Evaluation of the critical current density of multifilamentary Nb₃Sn wires from magnetization measurements"

R. Prokopec, K. Humer, R.K. Maix, H. Fillunger, H.W. Weber, J. Knaster: IEEE Trans. Appl. Supercond. 22, 7700604 1-4 (2012)

"Characterization of bonded glass / polyimide tapes for the ITER TF coil insulation"

R. Prokopec, D.X. Fischer, H.W. Weber, M. Eisterer: Supercond.Sci.Techn. 28, 014005 (2015)

"Suitability of coated conductors for fusion magnets in view of their radiation response"
