PROF. DR.-ING. HABIL. RAINER SCHMID-FETZER

PERSONAL DATA

Nationality	German
Family status	Married since 27 October 1978, five children
Home address	Ampferweg 22, D-38678 Clausthal-Zellerfeld
Home Phone	+49-5323-81990
Affiliation	Clausthal University of Technology, Institute of Metallurgy Robert-Koch-Str. 42, D-38678 Clausthal-Zellerfeld, Germany
Phone / Fax	+49-5323-72 2150 / +49-5323-72 3120
e-mail	schmid-fetzer@tu-clausthal.de
URL	http://www.imet.tu-clausthal.de/agrsf/

EDUCATION AND PROFESSIONAL EXPERIENCE

1966 - 1973	Study of physics at the TU Clausthal, graduated as "Diplom-Physiker"
1972 - 1973	Part-time teacher in mathematics and physics, High School Osterode
1973 - 1977	Research work in metallurgy at the TU Clausthal, Ph.D. thesis on a thermodynamic short-range order model in alloys
1977	Dr.-Ing. degree at the TU Clausthal
1977-1982	Supervising engineer at the Institute of Ferrous Metallurgy and Foundry Technology: research on metallurgical thermodynamics, solidification of alloys
1980	Dr.-Ing. habil. degree, *venia legendi* on "Metallurgy" at the TU Clausthal
in 1982	Visiting Scientist at the University of Wisconsin-Madison, USA, with Prof. Austin Chang: new focus on materials science
1983 - 1984	Visiting Associate Professor at the Dept. of Metallurgical and Mineral Engineering, University of Wisconsin-Madison, USA: research on functional materials, lectures in the graduate and undergraduate programme
1984-1997	"Akademischer Rat/Oberrat" at the Metallurgical Center of the TU Clausthal
1986	Appointment to apl. Professor at the TU Clausthal
1988	Foundation and head of the "Electronic Materials Group" in the Dept. of Metallurgy and Materials Science, TU Clausthal
in 1994	Visiting Scientist at the Daimler-Benz Corporate Research Institute, Frankfurt, Microelectronics and Microsystems
in 1997	Visiting Professor, Dept. of Materials Science and Engineering, University of Wisconsin-Madison: development of second generation software for thermodynamic calculations in multicomponent systems
1997 -	"Akademischer Direktor" and apl. Professor at the Metallurgical Center, now Institute of Metallurgy at the TU Clausthal, Head of the group Thermochemistry and Microkinetics

HONORS AND AWARDS

1996	Werner-Koester Prize, DGM (German Society of Materials)
2003	Fellow of ASM International
2008	Tammann-Award, DGM

PROFESSIONAL ACTIVITIES

Associate Editor	Journal of Phase Equilibria, ASM-International
Advisory Board	International Journal of Materials Research, DGM & C. Hanser Publ.
Chairman	Alloy Phases Committee, TMS
Past Chair	Alloy Phase Diagram International Commission – APDIC
Past Chair	Thermodynamics and Phase Equilibria Committee, DGM

SELECTION OF REFEREED JOURNAL PUBLICATIONS, 2009 - 1998

2009

- C.-N. Chiu, J. Gröbner, A. Kozlov, R. Schmid-Fetzer: Experimental study and thermodynamic assessment of ternary Mg-Zn-Ce phase relations focused on Mg-rich alloys. ***Intermetallics***, , (2009) accepted
- I. Kaban, J. Gröbner, W. Hoyer, R. Schmid-Fetzer: Liquid-liquid phase equilibria, density difference and interfacial tension in the Al–Bi–Si monotectic system. ***Journal of Materials Science***, (2009) accepted
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- R. Schmid-Fetzer: Thermodynamic aspects of tin segregation during solidification of aluminium alloys. ***Materials Science Forum***, **vols. 618-619,** pp 183-190 (2009)
- A.C. Hänzi, F.H. Dalla Torre, L. Zhao, P. Gunde, R. Schmid-Fetzer, M. Kuehlein, J.F. Löffler, P.J. Uggowitzer: Design Strategy for Microalloyed Ultra-Ductile Magnesium Alloys. ***Phil. Mag. Letters***, **89**, 377-390 (2009)
- W. Cao, S. Chen, F. Zhang, K. Wu, Y. Yang, Y. Chang, R. Schmid-Fetzer, W. A. Oates: PANDAT Software with PanEngine, PanOptimizer and PanPrecipitation for Materials Property Simulation of Multi-Component Systems. ***Calphad,*** **33**, 328-342 (2009)
- D. Mirković, J. Gröbner, I. Kaban, W. Hoyer, R. Schmid-Fetzer: Integrated approach to thermodynamics, phase relations, liquid densities and solidification microstructures in the Al-Bi-Cu system. ***Int. J. Materials Research (Z. Metallkunde)***, **100**, 176-188 (2009)
- D. Mirković, R. Schmid-Fetzer: Directional solidification of Mg-Al alloys and microsegregation study of Mg alloys AZ31 and AM50, part II: Comparison between AZ31 and AM50. ***Metall. Mater. Trans. A***, **40A**, 974-981 (2009)
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- A. Janz, J. Gröbner and R. Schmid-Fetzer: Thermodynamics and constitution of Mg-Al-Ca-Sr-Mn alloys - Part II - Procedure for multicomponent key sample selection and application to the Mg-Al-Ca-Sr and Mg-Al-Ca-Sr-Mn systems. ***J. Phase Equilibria & Diffusion,*** **30,** 157-175 (2009)
- A. Janz, R. Schmid-Fetzer: Thermodynamics and constitution of Mg-Al-Ca-Sr-Mn alloys - Part I - Experimental investigation and thermodynamic modeling of subsystems Mg-Ca-Sr and Al-Ca-Sr. ***J. Phase Equilibria & Diffusion,*** **30,** 146-156 (2009)
- A. Janz, J. Gröbner, H. Cao, J. Zhu, Y. A. Chang, R. Schmid-Fetzer: Thermodynamic modeling of the Mg-Al-Ca system. ***Acta Materialia***, **57**, 682-694 (2009)
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- J. Gröbner, A. Janz, A. Kozlov, D. Mirković, R. Schmid-Fetzer: Phase diagrams of advanced magnesium alloys containing Al, Ca, Sn, Sr and Mn. ***J. Metals***, No.12 (December), 32-38 (2008)
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- K. Bhanumurthy, R. Schmid-Fetzer: Diffusion bonding of Mo base alloy with interlayers. ***Int. J. Materials Research (Z. Metallkunde)*** **99**, 766-772 (2008)

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- V. Grolier, R. Schmid-Fetzer: Diffusion-reactions in the Au-rich ternary Au-Pt-Sn system as a basis for ternary diffusion soldering. ***Journal of Electronic Materials***, **37**, 815-828 (2008)
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- A. Kozlov, M. Ohno, T. Abu Leil, N. Hort, K.U. Kainer, R. Schmid-Fetzer: Phase Equilibria, Thermodynamics and Solidification Microstructures of Mg-Sn-Ca Alloys - Part 2. Prediction of phase formation in Mg-rich Mg-Sn-Ca cast alloys. ***Intermetallics***, **16**, 316-321 (2008)
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