



## CURRICULUM VITAE

### Dr. Ing. František Simančík

<b>Born:</b>	2.11.1962, Zlaté Moravce, Slovakia
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<b>Current position:</b>	R&D manager of Institute (since 2012) Coordinator of „INOVAL - Centre of competence for applied research on light metals and composites“ Coordinator of CEKOMAT - Centre of excellence for R&D on structural composites for engineering and medical applications“
<b>Main research focus:</b>	New Materials and Technologies: <ul style="list-style-type: none"><li>- metal matrix composites</li><li>- metallic foams (Al, Zn)</li><li>- Mg and its alloys</li><li>- nanostructured metallic materials (Al based)</li><li>- powder metallurgy (powder extrusion, ECAP, forging)</li><li>- gas pressure infiltration</li><li>- vacuum hot pressing (HIP)</li><li>- sublimation of metals</li></ul>
<b>Languages</b>	Slovak, Czech, English, German, Russian
<b>Education:</b>	1977 – 1981: Gymnasium Liptovský Hrádok, Slovakia (grammar school) 1981 - 1986: Slovak Technical University Bratislava, Faculty of Mechanical Engineering (field of study: Technology, Metallurgy) finished with „Ing.“ degree (Eng.) diploma thesis: "Development of AlSi18-Graphite composite" 1990 - 1993: doctoral study at the Institute for Technical Chemistry of Inorganic Materials, Technical University of Vienna, Austria finished with „Dr .techn.“ degree (PhD.) dissertation thesis: „Short carbon fibre - aluminium matrix composites prepared by powder metallurgical methods“
<b>Main research results:</b>	Development of new materials and technologies: <ul style="list-style-type: none"><li>- the technology for continuous coating of carbon fibres with copper and nickel (CS patent 1991)</li><li>- the technology for manufacturing of short carbon fibres Al-matrix composite via extrusion of powder mixtures (W.J.Müller-Prize TU-Vienna for best doctoral thesis 1993)</li><li>- composite material Copper-carbon fibres with controlled thermal expansion (Prize SAS 1996 for research team)</li><li>- original technology for foaming of aluminium from powder mixtures (16 patents, Prize: Slovak Technologist of year 1998, Prize SAS 2004 for research team, 4 serial applications in automotive and railway)</li><li>- nanostructured aluminium materials with enhanced structural stability at elevated temperatures (2011 - success story of MNT ERA NET, serial applications in engine components)</li><li>- Cu/W composite materials for divertor of fusion reactor (2010)</li><li>- new cutting material for saw bands based on intermetallic iron alloys (EP patent, serial application BYB GmbH, Waidhoffen Austria)</li><li>- technology for gas pressure infiltration (applications in manufacturing composite electrodes for bipolar batteries - Eff Power Sweden, and sliding</li></ul>

	<p>contacts – Elektrokarbon Topoľčany)</p> <ul style="list-style-type: none"> <li>- recycling of Mg scrap (application in Remag GmbH, Prambachkirchen, Austria)</li> <li>- new foam assisted casting technology (patent pending)</li> <li>- novel metal matrix composites for heat sink applications (patent pending)</li> </ul>
<b>Summary of research output:</b>	<p>360 publications, including 30 publications in Current Contents journals  More than 400 citations, (200) WOS citations  29 patents  70 invited lectures incl. 9 plenary opening lectures at international conferences  coordination of 26 research projects incl. 13 international projects  11 doctoral students (7 already finished with PhD degree)  10 x (co)chairman at international conferences  12 x scientific committee member at international scientific conferences  3 x member of editorial board of scientific journals</p>
<b>Main projects (coordination)</b>	<p>1994-1995: GAV 2/1133/94: "Interfacial of interfacial bonding between Al matrix and short ceramic fibres on mechanical properties "</p> <p>1995-1997: State contract ŠO 95/5305/035: "Development of the technology for manufacturing of aluminium foam and characterisation of its properties"</p> <p>1997-1999: BRITE Euram BE3876: "New copper – carbon fibre composites for new generation of electronic components</p> <p>2002-2005: APVT 51021102: "Bulk nanostructured aluminium profiles "</p> <p>2004-2008: 6 RP EÚ: integrated project Extremat IP (subproject coordination): „New materials for extreme environments“</p> <p>2005-2007: APVT 51031204: „Aluminium powder based extruded profiles with improved properties“</p> <p>2008-2010: APVV 0736-07: Development of low cost technology for foaming of complex aluminium parts“</p> <p>2008-2010: MNT ERANET (6RP EU): Bulk nanostructured Al profiles for applications at elevated temperatures (HIGTEMAL)</p> <p>2009-2013: 7 RP EÚ: SILTRANS NMP3 –SL 2009-229127: „Micro and nanocrystalline silicide-refractory metals FGM for materials innovation in transport applications.“</p> <p>2011-2014: APVV 0647-10: „Structural parts with enhanced stiffness via use of novel materials (ULTRALIGHT)“</p> <p>2008-2012: ERDF project: „Centre of excellence for R&amp;D on structural composites for engineering and medical applications (CEKOMAT)“ (coordinator of the centre)</p> <p>2011-2014: ERDF project: „Centre of competence for applied research on light metals and composites“ (coordinator of the centre)</p>
<b>Awards</b>	<p>1986 – Prize of Minister of education for excellent study results</p> <p>1993 - W.J.Müller-Preis TU-Vienna for best dissertation work</p> <p>1996 – Prize of Slovak Academy of Sciences (SAS) for the development of Cu-C composite</p> <p>1998 – Slovak technologist of the year– for the development of the technology for foaming of aluminium</p> <p>2003 – SAS medal</p> <p>2006 – Prize of Slovak Academy of Sciences (SAS) for the development of aluminium foam</p> <p>2011- Prize of the Minister of Education: “Personality of the year in Science and Technology”</p> <p>2012 – prestigious Slovak Prize „Crystal wing” for the achievements in Science and medicine in 2011“</p>

