

CURRICULUM VITAE (January, 2014)

Contact: kaptay@hotmail.com, phone: +36 30 415 0002, Skype: kaptay, web: www.kaptay.hu

Name: György (George) KAPTAY

Nationality: Hungarian

Date of birth: 2 March, 1960

Place of birth: Tatabanya, Hungary

Educational background:

Sep 1966 – Jun 1974: Elementary school of 8 grades at Almasfuzito-felso, Hungary

Sep 1974 – Jun 1978: Gymnasium of 4 grades at Komarom, Hungary

Sep 1978 – Feb 1984: Student at the Polytechnic Institute of Leningrad, Russia

Sep 1984 – Aug 1987: Ph.D. student at the Polytechnic Institute of Leningrad, Russia

Degrees obtained:

1984: Diploma Engineer in Metallurgy of Non-Ferrous Metals

1988: Candidate of Sciences (C.Sc.) in Metallurgy of Non-Ferrous Metals (Russian Academy of Sciences)

1988: Doctor Universitatis (Dr. Univ) (University of Miskolc, Hungary)

1997: Ph.D. (University of Miskolc, Hungary)

1999: Dr. habil (University of Miskolc)

2005: D.Sc. (Hungarian Academy of Sciences)

Languages:

Hungarian (mother tongue),

Russian (1984 proficiency level),

English (1987 intermediate level, 1992 “proficiency level” / in Hungary (-:

Posts: Mar -Aug 1984: Research Fellow at ALUTERV-FKI (Hungarian Research Institute of Non-Ferrous Metals, Budapest)

Nov 1987 - Jun 1988: Engineer at the University of Miskolc (UM), Department of Physical Chemistry (DPC)

Jul 1988 - Jun 1989: Research fellow at UM, DPC

Jul 1989 – Jun 1994: Assistant Professor at UM, DPC

Jul 1994 - Jun 1999: Associate Professor at UM, DPC

since 1999 till present day: full Professor at UM, DPC (08.2006 – 10.2013: part-time)

Jul 1996 - Jun 2004: Head of Department of Physical Chemistry at UM

Jul 1996 - Nov 1998: Director of Institute of Chemistry at UM

Nov 1998 - Jun 2006: Dean of the Faculty of Materials Science and Engineering

Jul 2003 - Jun 2004, Head of Department of Metalforming at UM (as a Dean)

Jul 2006: Founding director of the Research Institute for Nanotechnology BAY-NANO within the Bay Zoltan Public Foundation for Applied Research (at Miskolc, Hungary)

Since Jul 2006: Head of the Department of Nano-composites at BAY-NANO (since December 2010: Head of Group on Nanomaterials at BAY-LOGI, since September 2011: Head of Department of Nanomaterials at BAY-LOGI)

Since Jul 2007: Head of the Department of Nanotechnology within the University of Miskolc

Dec 2007 – Dec. 2011: Vice-director on scientific affairs of BAY-NANO (December 2010 – December 2011: the same in BAY-LOGI)

Study tours, visiting professorships (more than a week per site):

- i. IONH – Research Institute of the Academy of Sciences of Ukraine, Kiev (3 * 2 weeks between 1990 – 1992);
- ii. The University of Alabama, USA (3 months in 1991);
- iii. University of Catania, Italy (2 weeks, 1996);
- iv. Marseille and Grenoble Polytechnic, France (2 weeks, 1997);
- v. Kyushu Institute of Technology, Japan (1 month, 2002);
- vi. Kyushu Institute of Technology, Japan (1.5 months, 2003);
- vii. Swinburne University of Technology, Melbourne, Australia (1 month, 2007)
- viii. Swinburne University of Technology, Melbourne, Australia (3 weeks, 2011)

Short visits: more than 100 in Europe, North-America, Asia

Management of the teaching process:

- development of the subject “Physical Chemistry” (1993 – 2007) and later “Equilibrium of Materials”, “Theory of Phase Diagrams”, “Interfacial Phenomena” and “The Art of Doing Science” (since 2007) for the course in Materials Engineering within the University of Miskolc, Hungary
- transition from the historical Faculty of Metallurgical Engineering (established in 1735 by queen Maria Teresia) to the Faculty of Materials Science and Engineering, with opening a new Department for Ceramic Materials and a new Department for Polymer Materials, and merging smaller traditional departments on Metallic Materials (1998 – 2006),
- leadership in transition of the Hungarian higher education on materials science and engineering from the traditional 5-year system to the new, Bologna-system, i.e. development of state requirements + curricula + accreditation for BSc and MSc levels in Materials Science and Engineering courses for the whole country (Hungary) and its implementation at the University of Miskolc (2003-2005).
- introduction of courses on “Nanotechnology” at BSc, MSc and PhD levels into the course on materials engineering at the University of Miskolc, Hungary (since 2008).

Scientific management:

- scientific leader of a research group of 3-20 people since 1992.
- founding director of the BAY-NANO research institute on Nanotechnology, in Miskolc, Hungary (2006).

Courses held for undergraduate and graduate students of materials science and engineering:

- i. Physical Chemistry of Materials
- ii. Interfacial (nano-) phenomena in materials
- iii. Equilibria in nano-materials
- iv. Equilibrium of materials (BSc and MSc levels)
- v. The Art of Doing Science (how to make research and disseminate the findings?)

Supervisor of more than 30 diploma works for **MSc degree**.

Ph.D. degrees received under his supervision:

- i. Sergei Devyatkin: Electrochemical Synthesis of Transition Metals' Diborides from Molten Salts; May 1997, University of Miskolc

- ii. Laszlo Tikasz: Aluminium Electrolysis – Feb 2001, University of Miskolc
- iii. Eniko Bader: Wettability of Ceramics by Liquid Metals – May 2001, University of Miskolc
- iv. Renata Roman: Removal of Zn from Fly Ash by Molten Salt Treatment – July 2001, Vree University of Brussels, in cooperation with dr. A.Buekens
- v. Jaroslav Sytchev: Synthesis of carbon nanotubes by electrolysis of molten salts – November 2006, in cooperation with prof. H.Khushkov
- vi. Olga Verezub: In-situ Laser Melt Injection of surface steel nano-composites – March 2007, in cooperation with prof. A.I.Grabchenko of the University of Kharkhov.
- vii. Tamas Gabor: Modification of carbon nanotubes – March 2008, in cooperation with prof. Erika Kálmán
- viii. Istvan Budai: Preparation of particles stabilized liquid metallic emulsions and monotectic alloys – June 2009
- ix. Peter Baumli: Perfect wettability by liquid aluminium and spontaneous synthesis of Al-matrix metal (nano-) composites – June, 2010
- x. Gabor Levai: Coloured hot dip galvanization of steels – December 2013 (with T.I.Török as ex-supervisor).

Research interests:

i. Chemical Thermodynamics – Measurement and Estimation of Thermodynamic Properties (bulk and surface) of Inorganic Phases and Alloys. Models for bulk and surface/interface properties. Evaluation of data and creation of databanks. Calculation of phase diagrams. Laws of thermodynamics (4th law). Surface and interfacial phase transition.

ii. Surface Science – topics, related to interfacial and other phenomena in systems containing liquid metals, solid metals, ceramic particles and bubbles (MMC, Amorphous MMC, Penetration phenomena, metallic foams, metallic emulsions, surface phase transition, Marangoni flow, etc.)

iii. Electrochemistry and Chemistry in Molten Salt Media - Aluminum Electrolysis. Electrochemical Synthesis of Compounds (such as titanium diboride, etc.), coatings and powders. Calculation of electrochemical synthesis diagrams.

iv. Nanotechnology – Electrochemical synthesis of carbon nanotubes and nanopowders from molten salts. Development of composite materials reinforced by nanoparticles and nanopowders. Calculation of a prewetting line for phase diagrams. Optimization of cutting conditions of UFG metals.

v. Modeling thermophysical properties of liquid metals and alloys – cohesive enthalpy, critical point, volume thermal expansion coefficient, surface tension, interfacial energy, viscosity, diffusion coefficient.

vi. Industrial application - Physicochemical basis. Ladle metallurgy. Model for the LD converters. Cathode protection in Al electrolysis cells. Surface treatment of Al alloys. Joining (welding, soldering, brazing). Deoxidation and desulfurization by selective adsorption. Purification of metallurgical silicon. Open cell foams (Ni, Ti).

vii. Metrology – reform of the SI system (5 base units instead of 7). Reform of the new IUPAC table of atomic masses.

Publications: 320 papers in journals, proceedings and books (95 in Web of Knowledge)

Cumulative impact factor: 123 (76 if each is divided by the number of co-authors)

Independent citations obtained: total more than 1240 (741 citations in Advanced Search and 687 independent citations in 584 citing papers in Cited Reference Search of Web of Knowledge)

h-index: 17 from all independent citations (14 as calculated by Web of Science), average $dh/dt = 1/\text{year}$ since the year of 2000.

Research grants: total about 30 grants since 1989, for total about USD 25 M (in Hungary)

Membership in professional bodies and posts held:

- i. American Society of Materials (ASM) (membership No 153862)
- ii. The Minerals, Metals & Materials Society (TMS) (lifetime membership No 387470)
- iii. International Society of Electrochemistry (ISE)
- iv. The Electrochemical Society
- v. European Federation of Corrosion – (Hungarian delegate to the Working Party on Hot Gases and Combustion Products 1993-1996)
- vi. IUPAC Hungarian representative in Commission on Chemical Thermodynamics (1997-2000)
- vii. Executive Officer of FEMS (2006-2011), President of the Award Committee (2008-2011)
- viii. Member of Hungarian Scholarship Board (MÖB, since 2008)
- ix. Member of OTKA decision board (Metallurgical and Mechanical Sciences: 2008-2011, Electrical Sciences: since 2012)
- x. Hungarian Society of Mining and Metallurgy (OMBKE)
- xi. Eotvos Physical Society, Division of Thermodynamics
- xii. Hungarian Academy of Sciences, Miskolc regional Division, Working group of Physical Chemistry (president 1996-2008)
- xiii. Academy of Sciences, Committee on Metallurgy (elected member since 1996)
- xiv. Academy of Sciences, Subcommittee on Chemical Metallurgy (president 1999-2005, member since 2006)
- xv. President of Hungarian Society of Materials (since December 2013)

Awards / Prizes received

- i. Medal for Student's Achievement, given by the Minister of Education, 1984
- ii. Young Scientist's prize at ALUTERV FKI, 1985
- iii. prize of Foundation „for the development of Hungarian Engineering”, 1989
- iv. prize of Foundation „for the development of Hungarian Engineering”, 1990
- v. prize of Foundation „for the Hungarian Science”, 1992
- vi. prize for Scientific Achievement given by the Miskolc Chamber of the Hungarian Academy of Sciences, 1998
- vii. Acknowledgement for advisory work with Maziar S. Yaghmaee, a 5th year student who won Pro Scientia gold medal in 1999 for his research work, 1999
- viii. Rector's acknowledgement for the development of the education of materials engineering at the University of Miskolc, 2005
- xi. Order of Knighthood from the Minister of Education of Hungary, 2006
- xii. “Best advisor” for students research work by the Dean of the Faculty of Materials Engineering of the University of Miskolc, November, 2010.

Membership of journals' editorial boards / guest editor

- Ions and Plasmas (Elsevier, 1998-2000)
- World of Materials (e-journal, since 2000)

Journal of Mining and Metallurgy (published in Bor, Serbia, member since 2002)
Zhurnal Funkcionalnich Materialov (in Russian, since 2006)
Open Thermodynamic Journal (since 2008)
Archives of Metallurgy and Materials (since 2012)
J. Materials Science (Springer) – guest editor, 2010
J Nanoscience Nanotechnology – guest editor, 2011

Co-chairmanship of conferences:

- i. APDTC meeting, Miskolc, 20th November, 2004 (10 foreign participants)
- ii. EUROMAT 2005 conference, Prague, Czech Republic, 5-8 September, 2005.
- iii. 5th Solidification and Gravity Conference, 1-4 September, 2008, Miskolc-Lillafüred, Hungary.
- iv. 6th Solidification and Gravity Conference, 2-5 September, 2013, Miskolc-Lillafüred, Hungary.

Member of scientific committee of conferences:

- v. 10 Conference on Colloid Chemistry, 29-31 August, 2012, Budapest, Hungary
- iv. HTC (High-temperature Capillarity) conference series: 2007 (Spain), 2009 (Greece), 2012 (Israel)
- iii. EUCHEM on Molten Salts: 1996 (Slovakia), 1998 (France), 2000 (Denmark), 2002 (UK), 2004 (Poland), 2006 (Tunisia)
- ii. Symposium on Molten Salts Chemistry Technology, 2001 (China)
- i. MicroCAD conference series (Miskolc, Hungary): 1999, 2000, 2001, 2002, 2003, 2004, 2005

Organizer of Short Courses on EUROMAT conferences

- Euromat 2011: Montpellier, France, 12-15 September, 2011
- Euromat 2009: Glasgow, UK, 6-11 September, 2009
- Euromat 2007: Nürnberg, Germany, 10-13 September, 2007
- Euromat 2005: Prague, Czech Republic, 5-8 September, 2005

Chairman of scientific sessions at conferences

- xx. EUROMAT 2013, 8-13 September, 2013, Sevilla, Spain
- xix. 6th Solidification and Gravity Conference, 2-5 September, 2013, Miskolc-Lillafüred.
- xviii. 26th microCAD Int. Sci Conf, 29-30 March, 2012.
- xvii. 7th International Conference on High Temperature Capillarity (HTC), 18-22 March, 2012, Eilat, Israel.
- xvi. International FRAY Symposium on Metals and Materials Processing, 2011, Mexico.
- xv. Nanosmat 5, Reims, France, 18-21 October, 2010
- xiv. Junior Euromat, 2010 (Lausanne)
- xiii. Nano-Smat: 2008 (Spain), 2010 (France)
- xii. EUROMAT: 2007 (Germany),
- xi. Calphad (Calculation of Phase Diagrams): 2004 (Poland), 2009 (Czech Republic), 2010 (Jeju)
- x. HTC (High-Temperature Capillarity): 2004 (Italy), 2007 (Spain), 2009 (Greece), 2012 (Eilat)
- ix. Int. Conf. „Advanced Metallic Materials”, Slovakia, 2003
- viii. Int. Conf Mining + metallurgy: 2002 (Yugoslavia), 2011 (Serbia)
- vii. Russian Conf on Physical Chemistry: 2001
- vi. EUCHEM on Molten Salts: 2000 (Denmark), 2002 (UK), 2004 (Poland),
- v. MicroCAD (Miskolc, Hungary): 2000, 2003, 2004,
- iv. Hungarian Conf on Materials Science: 1999, 2005, 2011
- iii. Int Symp on Molten Salts: 1997 (Germany), 2002 (USA)
- ii. ISE meetings (Int Soc Electrochemistry): 1996 (Hungary),
- i. Solidification and Gravity (Miskolc, Hungary): 1995, 1999, 2004, 2008

Reviewer for journals:

1)	Acta Mater	2
2)	Advances in Colloid and Interface Science	1
3)	Anyag- és Kohómérnöki Tudományok	2
4)	Applied Materials and Interfaces	1
5)	Applied Surface Science	2
6)	BKL Kohászat	2
7)	Calphad	14
8)	Carbon	4
9)	Ceramic International	1
10)	Chemical Papers	1
11)	Chemical Physics Letters	1
12)	Colloid and Polymer Science	2
13)	Colloids and Surfaces A, Phys-Chem.	6
14)	Composite Sci Technol	1
15)	Composites A	5
16)	Electrochemical and Solid State Letters	1
17)	Electrochemical Communications	1
18)	Electrochemistry (Japan)	1
19)	Electrochimica Acta	41
20)	Gép	1
21)	Gépészet	1
22)	High Temperature Materials Processes	1
23)	Hindawi	1
24)	Ind & Engin Chem Res	1
25)	Intermetallics	1
26)	Int J Microstructure Mater Propert	1
27)	Int J Phys Sci	1
28)	International Materials Reviews	1
29)	J.Alloys and Compounds	12
30)	J.Chem.Eng.Data	4
31)	J. Chem. Thermodynamics	1
32)	J. Colloid Interface Sci	6
33)	J. Electroanal. Chem.	2
34)	J.Electrochem Society	21
35)	J. Mater Chem	1
36)	J. Mater Eng. Perform.	5
37)	J. Mater. Sci.	20
38)	JMM B	29
39)	J. Molecular Liquids	1
40)	J. Nanosci Nanotechnol	18
41)	J. of Non-crystalline Solids	3
42)	J. Phys. Chem.	1
43)	Korróziós Figyelő	1
44)	Kovové Materiály	2
45)	Lab on Chips	1
46)	Mater.Sci.Forum	19
47)	Materials Chem and Phys	14
48)	Mater Res	1
49)	Materials Science and Engineering A	4
50)	Mater Sci Technol	2
51)	Mater Letters	1
52)	ME Doktori Fórum kiadványai	53
53)	Metall Mater Trans A	2
54)	Metall Mater Trans B	7
55)	Microcad Proceedings	2
56)	Miskolci Egyetem Közleményei	1
57)	Monatscheft für Chemie	2
58)	Optics and Lasers in Engineering	2

59)	Periodica Polytechnica	1
60)	Phil. Mag.	2
61)	Phys Chem Chem Phys	2
62)	Physica B	1
63)	Plasma Chemistry Plasma Processing	2
64)	Polymers for Advanced Technologies	1
65)	Powder Technology	1
66)	Proc. of the Electrochemical Society	7
67)	Proc. of HTC conferences	2
68)	Proc. of Int Conf on Tools	3
69)	Proc. of the Molten Salts Conferences	4
70)	Scripta Mater	1
71)	Separation Purification Technologies	1
72)	Smart Materials and Structures	1
73)	Soft Matter	1
74)	SOLMAT – Solar Energy Materials	1
75)	Surface Coating Technol	2
76)	Surface and Interface Analysis	1
77)	Surface Science	1
78)	Tavaszi Szél konferencia Proc.	1
79)	Theoretical Chemistry Accounts	1
80)	The Scientific World Journal	1
81)	Trans Indian Inst Metals	1
82)	Wood Mater Sci Eng	1
83)	Z. Metallkunde (Int J Mater Res)	4
84)	Z. Naturforschung	5
Total referee reports, written		372

Number of co-authors: 329 scientists.

Most important publications in the last 5 years (2009 – 2013):

K.L.Juhasz, P.Baumli, J.Sytchev, G.Kaptay: Wettability of a graphite crucible by liquid aluminum under molten potassium halide fluxes. *J Mater Sci*, 2013, vol.48, pp. 7679-7685. (2012-IF = 2.163).

Z. Weltsch, A. Lovas, J. Takács, Á. Cziráki, A. Tóth, G. Kaptay: Measurement and Modelling of the Wettability of Graphite by a Silver-Tin (Ag-Sn) Liquid Alloy – *Applied Surface Science*, 2013, vol.268, pp.52-60. (2012-IF = 2.112)

P. Baumli, J. Sychev, I. Budai, J.T. Szabo, G.Kaptay: Fabrication of carbon fiber reinforced aluminum matrix composites via a titanium-ion containing flux. *Composites A*, 2013, vol. 44, pp. 47–50 (2012-IF = 2.744).

T. Sándor, C. Mekler, J. Dobránszky, G. Kaptay: An improved theoretical model for A-TIG welding based on surface phase transition and reversed Marangoni flow – *Metall Mater Trans A*, 2013, vol.44A, pp. 351-361. (2012-IF = 1.627).

A.A.Symonova, O.N.Verezub, A.A.Sycheva, N.V.Verezub, V.L.Havin, G.Kaptay: Surface grain coarsening and surface softening during machining of ultra-fine grained titanium – *JMM B (J. Min. Metall. Sect. B-Metall)*, 2012, vol.48, No.3, pp. 449-459 (IF = 1.435).

G.Kaptay: On the interfacial energy of coherent interfaces. *Acta Mater*, 2012, vol.60, pp. 6804-6813. (IF = 3.941).

G.Kaptay: On the order–disorder surface phase transition and critical temperature of pure liquid metals originating from bcc, fcc and hcp crystal structures – *Int. J. Thermophysics*, 2012, vol.33, No.7, pp. 1177-1190. (IF = 0,568).

G.Kaptay: Nano-Calphad: extension of the Calphad method to systems with nano-phases and complexions - J Mater Sci, 2012, vol.47, pp.8320-8335 (IF = 2.163).

D. Janovszky, K.Tomolya, A.Sycheva, G. Kaptay, Stable miscibility gap in liquid Cu-Zr-Ag ternary alloy, J Alloys Compds, 2012, vol.541, pp.353-358. (IF = 2,390).

Zs. Baji, A. Szanyo, Gy. Molnár, A.L. Toth, G. Pető, K. Frey, E. Kotai, G. Kaptay: Formation of Nanoparticles by Ion Beam Irradiation of Thin Films. JNN ([Journal of Nanoscience and Nanotechnology](#)), 2012, vol. 12, No.6, pp. 5009-5015 (IF = 1.149).

O.Z.Nagy, J.T.Szabo, G.Kaptay: Stabilization of metallic emulsions by in-situ precipitating intermetallic layers – Intermetallics, 2012, vol.26, pp.26-30. (IF = 1.857).

G.Kaptay: On the size and shape dependence of the solubility of nano-particles in solutions – Int. J. Pharmaceutics (IJP), 2012, vol.430, pp.253-257. (IF = 3.458).

K. L. Juhasz, P. Baumli, G. Kaptay: Fabrication of carbon fibre reinforced, aluminium matrix composite by potassium iodide (KI) – potassium hexafluorotitanate (K_2TiF_6) flux, Mater.-wiss. Werkstofftech. 2012, vol. 43, No. 4, pp.310-314. (IF = 0.505)

G.Kaptay: The Gibbs equation versus the Kelvin and the Gibbs-Thomson equations to describe nucleation and equilibrium of nano-materials, JNN (Journal of Nanoscience and Nanotechnology), 2012, vol.12, No.3, pp. 2625-2633 (IF = 1.149).

G. Kaptay: On the atomic masses (weights?) of the elements, J. Min. Metall. B, 2012, vol.48, pp. 153-159 (IF = 1.435).

G.Kaptay: Interfacial Forces in Dispersion Science and Technology - Journal of Dispersion Science and Technology, 2012, vol.33, pp.130-140 (IF = 0.600).

G.Kaptay: On the optimum contact angle of stability of foams by particles – Advances in Colloid and Interface Science, 2012, vol.170, pp. 87-88 (IF = 6.169).

G.Kaptay: The conversion of phase diagrams of solid solution type into electrochemical synthesis diagrams for binary metallic systems on inert cathodes - Electrochimica Acta, 2012, vol.60, pp.401-409. (IF = 3.777)

Y. Tang, Y. Du, L. Zhang, X. Yuan, G.Kaptay: Thermodynamic description of the Al–Mg–Si system using a new formulation for the excess Gibbs energy – Thermochimica Acta, 2012, vol.527, pp.131-142. (IF = 1.989).

G.Kaptay: On the tendency of solutions to tend toward ideal solutions at high temperatures – Metall Mater Trans A, 2012, vol.43, pp. 531-543. (IF = 1.627).

G.Kaptay: On the five base quantities of nature and SI (The International system of Units) – JMM B, 2011, vol.47, No.2, pp.241-246. (IF = 1.317).

D.Madarasz, I.Budai, G.Kaptay: Fabrication of SiC-particles shielded Al-spheres upon recycling Al/SiC composites – Metal Mater Trans A, 2011, [Volume 42, Number 6](#), 1439-1443 (IF = 1.545).

I.Budai, O.Z.Nagy, G.Kaptay: Inversion of a liquid Bi/Al metallic emulsion stabilized by solid SiC particles, Coll Surf A, 2011, vol.377, pp.325-329 (IF = 2.236)

O.Verezub, Z.Kálazi, A.Sycheva, L.Kuzsella, G.Buza, N.V.Verezub, A.Fedorov, G.Kaptay: Performance of a cutting tool made of steel matrix surface nano-composite produced by in-situ laser melt injection technology – J Mater Process Technol., 2011, vol.211, pp.750-758 (IF = 1.783)

I.Budai, G.Kaptay: Monotectic Al/Cd alloys with homogeneously dispersed Cd-droplets stabilized by strontium aluminide precipitates – Intermetallics, 2011, vol.19. pp.423-425 (IF = 1.649).

G.Kaptay: The Extension of the Phase Rule to Nano-Systems and on the Quaternary Point in One-Component Nano Phase Diagrams - J. Nanosci. Nanotechnol., 2010, vol.10, pp.8164–8170. (IF = 1.352).

P.Baumli, J.Sytchev, G.Kaptay: Perfect wettability of carbon by liquid aluminum achieved by a multifunctional flux. J Mater Sci, 2010, vol.45, pp. 5177-5190 (IF = 1.859)

I.Budai, G.Kaptay: Wettability of SiC and alumina particles by liquid Bi under liquid Al – J. Mater Sci, 2010, vol.45, pp.2090-2098. (IF = 1.859)

J.Sytchev, G.Kaptay: Influence of alkali metal on the erosion of a graphite cathode and morphology of carbon nanotubes – Electrochim Acta, 2009, vol.54, pp. 6725-6731. (IF = 3.325)

O. Verezub, Z. Kálazi, G. Buza, N. V. Verezub, G. Kaptay: Classification of laser beam induced surface engineering technologies and in situ synthesis of steel matrix surface nanocomposites - Surface Engineering, 2011, vol.27, No.6, pp. 428-435. (published online on 3 June, 2009) (2010-IF = 0.633)

O. Verezub, Z. Kálazi, G. Buza, N.V. Verezub, G. Kaptay: In-situ synthesis of a carbide reinforced steel matrix surface nanocomposite by laser melt injection technology and subsequent heat treatment, Surface & Coatings Technology, 2009, vol. 203, pp.3049-3057. (IF = 1.793)

I.Budai, G.Kaptay: A new class of engineering materials: particles stabilized metallic emulsions and monotectic alloys, Metall. Mater Trans A, 2009, vol.40A, pp.1524-1528. (IF = 1.564)

T.Gábor, F.H.Kármán, J.Sytchev, E.Kálmán, G.Kaptay: The separation of carbon nanotubes from chlorides – Carbon, 2009, vol.47, pp.1195-1198. (IF = 4.504)