

Publications in Refereed Journals

Chumak, O. - Kopecký, V. - Sember, V. - Hrabovský, M.

Investigation of radiation of alumina particles injected into water-argon plasma jet and measurement of particle temperature by optical pyrometry.

Czechoslovak Journal of Physics, **52** [supplement D] 872-877 (2002).

[Symposium on Plasma Physics and Technology/20th./ Prague (CZ), 02.06.10-02.06.13 (EUR)]

Grant: GA ČR(CZ) GA202/01/1563

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Eliáš, M. - Kudrle, V. - Janča, J. - Brožek, V.

Plasmachemical nitridation of boron precursors.

Czechoslovak Journal of Physics. Supplement D, **52** [7] D850-D856 (2002).

[Symposium on Plasma Physics and Technology /20./ Prague (CZ), 02.06.10-02.06.13 (EUR)]

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Eliáš, M. - Žíla, J. - Janča, J. - Brožek, V.

Simultaneous plasmachemical reduction of mixed tungsten and titanium precursors.

Czechoslovak Journal of Physics. Supplement D, **52** [7] D857-D860 (2002).

[Symposium on Plasma Physics and Technology /20./ Prague (CZ), 02.06.10-02.06.13 (EUR)]

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Gregor, J. - Jakubová, I. - Mendl, T. - Šenk, J. - Kopecký, V.

Method of correction of measured temperature and velocity field in free hot gas jet.

Czechoslovak Journal of Physics, **52** [supplement D] 601-606 (2002).

[Symposium on Plasma Physics and Technology/20th./ Prague (Cz), 02.06.10-02.06.13 (EUR)]

Grant: GA ČR(CZ) GA202/01/1563

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Gregor, J. - Jakubová, I. - Mendl, T. - Šenk, J. - Kopecký, V.

Thermocouple based method of temperature and velocity field mapping.

Czechoslovak Journal of Physics, **52** [supplement D] 596-600 (2002).

[Symposium on Plasma Physics and Technology/20th./ Prague (CZ), 02.06.10-02.06.13 (EUR)]

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Gregor, J. - Jakubová, I. - Šenk, J. - Hrabovský, M. - Kolman, B. - Konrád, M. - Kopecký, V. - Vorlíček, V. - Pokorný, J.

Deposition of diamond films in arc plasma jet at atmospheric pressure.

Czechoslovak Journal of Physics, **52** [supplement D] 878-885 (2002).

[Symposium on Plasma Physics and Technology/20th./. Prague (CZ), 02.06.10-02.06.13 (EUR)]

Grant: GA ČR(CZ) GV106/96/K245

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Heinz, J. - Šenk, J. - Hrabovský, M.

Processes of energy exchange between blasted electric arc and surrounding gas in arc heater channel.

Czechoslovak Journal of Physics, **52** [supplement D] 583 (2002).

[Symposium on Plasma Physics and Technology/20th./. Prague (CZ), 02.06.10-02.06.13 (EUR)]

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Hrabovský, M.

Generation of thermal plasmas in liquid-stabilized and hybrid dc-arc torches.

Pure and Applied Chemistry, **74** [3] 429-433 (2002).

[International Symposium on Plasma Chemistry/15th./. Orléans (FR), 01.07.09-01.07.13 (WRD)]

[Impact factor:1.308(91) 1.739(92) 1.323(93) 1.403(94) 1.495(95) 1.630(96) 1.971(97) 1.677(98) 1.141(99) 1.257(00) 1.535(01) 1,750(02)]

Kavka, T. - Hrabovský, M.

Development of plasma properties along thermal plasma jet generated by hybrid water-argon torch.

Czechoslovak Journal of Physics, **52** [supplement D] 637-642 (2002).

[Symposium on Plasma Physics and Technology/20th./. Prague (CZ), 02.06.10-02.06.13 (EUR)]

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Kopecký, V. - Hrabovský, M.

Effect of plasma density on parameters of hydrodynamic oscillations in thermal plasma jet.

Czechoslovak Journal of Physics, **52** [supplement D] 567-570 (2002).

[Symposium on Plasma Physics and Technology/20./. Prague (CZ), 02.06.10-02.06.13 (EUR)]

Grant: GA AV ČR(CZ) IAA1057202

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97) 0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Kotalík, P. - Nishiyama, H.

An Effect of Magnetic Field on Arc Plasma Flow.

IEEE Transaction on Plasma Science, **30** [1] 160-161 (2002).

[Impact factor:0.918(91) 1.317(92) 1.078(93) 0.969(94) 1.085(95) 1.300(96) 1.183(97) 1.072(98) 1.085(99) 1.227(00) 0.892(01) 1,170(02)]

Nanobashvili, S. - Matějčík, J. - Žáček, F. - Stöckel, J. - Chráska, P. - Brožek, V.

Plasma Sprayed Coatings for RF Wave Absorption.

Journal of Nuclear Materials, **307-311**, 1334-1338 (2002).

[Impact factor:0.963(91) 1.561(92) 0.727(93) 1.264(94) 0.783(95) 1.306(96) 1.077(97)
1.177(98) 1.201(99) 1.241(00) 1.366(01) 1,730(02)]

Nanobashvili, S. - Matějček, J. - Žáček, F. - Stöckel, J. - Chráška, P. - Brožek, V.
Plasma Sprayed Coatings for RF Wave Absorption.

Journal of Nuclear Materials, **307-311**, 1334-1338 (2002).

Grant: COST(XE) DV4/04(TWO)

[Impact factor:0.963(91) 1.561(92) 0.727(93) 1.264(94) 0.783(95) 1.306(96) 1.077(97)
1.177(98) 1.201(99) 1.241(00) 1.366(01) 1,730(02)]

Selezneva, S. E. - Sember, V. - Gravelle, D. V. - Boulos, M. I.

Spectroscopic validation of the supersonic plasma jet model.

Journal of Physics D: Applied Physics. D, **35** [12] 1338-1349 (2002).

[Impact factor: 1.100(96) 1.090(97) 0.000(98) 1.188(99) 1.179(00) 1.260(01) 1,366(02)]

Sember, V.

Spectroscopic measurement of temperature and composition of a plasma jet generated by a hybrid water argon arc torch.

Czechoslovak Journal of Physics, **52** [supplement D] 643-650 (2002).

[Symposium on Plasma Physics and Technology/20th./ Prague (Cz), 02.06.10-02.06.13 (EUR)]

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97)
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Sember, V. - Gravelle, D. V. - Boulos, M. I.

Spectroscopic study of a supersonic plasma jet generated by an ICP torch with a convergent-divergent nozzle.

Journal of Physics D: Applied Physics. D, **35** [12] 1350-1361 (2002).

[Impact factor: 1.100(96) 1.090(97) 0.000(98) 1.188(99) 1.179(00) 1.260(01) 1,366(02)]

Van Oost, G. - Leys, C. - Joos, M. - Van Heesch, B. - Hrabovský, M. - Šunka, P.

Plasma based total treatment of waste and low-grade fuels.

Czechoslovak Journal of Physics, **52** [supplement D] 784-793 (2002).

[Symposium on Plasma Physics and Technology/20th./ Prague (CZ), 02.06.10-02.06.13 (EUR)]

[Impact factor:0.344(91) 0.309(92) 0.351(93) 0.330(94) 0.310(95) 0.339(96) 0.212(97)
0.348(98) 0.328(99) 0.298(00) 0.345(01) 0,311(02)]

Publications in Proceedings of International Conferences

Brožek, V. - Dufek, V. - Neufuss, K. - Šarman, L.

Preparation and Properties of Spheroided Tungsten Powder.

In: *Proceedings of the 11th International Metallurgical & Materials Conference METAL 2002.* - Ostrava, TANGER, Ostrava 2002. - S. E-20.

[International Metallurgical & Materials Conference /11th./ METAL 2002.. Hradec nad Moravicí (CZ), 02.05.14-02.05.16 (WRD)]

Brožek, V. - Dufek, V. - Rohan, P. - Ettmayer, P.

Study of the Phase Transfer in Titanium-Skandium Alloys.

In: *Proceedings of the International Metallurgical and Materials Conference METAL 2002.* - Ostrava, TANGER, Ostrava 2002. - S. E-19.

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Brožek, V. - Vídenský, J. - Kolman, B. - Neufuss, K.

CMC and MMC Composites Prepared by Plasma Spraying.

In: *Development of Materials Science in Research and Education, Abstracts of the 12th Joint Seminar.* - (Ed. Nitsch, K.; Rodová, M.). - Praha, MAXDORF, s.r.o. 2002. - S. 13-14.

[Development of Materials Science in Research and Education.. Ostravice (CZ), 02.09.10-02.09.12 (EUR)]

Brožek, V. - Dufek, V. - Neufuss, K.

Plasma spraying enables spheroidisation of tungsten particles.

In: *15th International Congress of Chemical and Process Engineering CHISA 2002.* - Praha, Process Engineering Publisher 2002. - S. 286.

[Materials of the 15th International Congress of Chemical and Process Engineering CHISA 2002.. Praha (CZ), 02.08.25-02.08.29 (WRD)]

Brožek, V. - Hofman, R. - Ctibor, P. - Hrabovský, M.

Plasma Spray Deposition of Boron Carbide.

In: *Development of Materials Science in Research and Education, Abstracts of the 12th Joint Seminar.* - (Ed. Nitsch, K.; Rodová, M.). - Praha, MAXDORF, s.r.o. 2002. - S. 11-12.

[Development of Materials Science in Research and Education.. Ostravice (CZ), 02.09.10-02.09.12 (EUR)]

Grant: GA ČR(CZ) GA104/01/0149; GA ČR(CZ) GA202/01/1563

Dufek, V. - Brožek, V. - Janča, J.

Příprava nanometrického práškového karbidu wolframu.

In: *NANO '02 Proceedings of the National Conference.* - (Ed. Švejcar, J.; Šandera, P.). - Ostrava, Repronis Ostrava 2002. - S. 125-128.

[NANO '02 National Conference.. Brno (CZ), 02.11.19-02.11.21 (CST)]

Hrabovský, M.

Generation of Thermal Plasma Jets in Liquid-Stabilized and Hybrid Gas-Liquid Plasma Torches.

In: *Power Beams and Materials Processing PBAMP-2002. Proceedings of DAE-BRNS Symposium on Applications of Plasmas, Lasers and Electron Beams in Advanced Materials Processing.* - (Ed. Das, A.K.; Bapat, A.V.; Sinha, A.K.). - Mumbai, Allied Publishers Private Limited 2002. - S. 29-39.

[Power Beams and Materials Processing PBAMP-2002.. Mumbai (IN), 02.09.25-02.09.28 (WRD)]

Grant: GA ČR(CZ) GA202/01/1563

Jeništa, J.

Studium různých provozních režimů na parametry plazmového výboje s vodní vírovou stabilizací. (Ed. Matyska, L.; Holub, P.). - Praha, CESNET, z.s.p.o., Praha 2002. - 4 s.

Grant: GA ČR(CZ) GA202/01/1563

Kopecký, V. - Hrabovský, M.

Hydrodynamic instability of thermal plasma flow generated by a hybrid steam-argon torch.
In: *Conference Proceedings Join Conference ESCAMPING 16 and ICRP 5*. - (Ed. Sadeghi, N.; Sugai, H.). - Grenoble, CMRS 2002. - S. 259-260.

[European Conference on Atomic and Molecular Physics of Ionized Gases and 5th International Conference on Reactive Plasmas/16th./. Grenoble (FR), 02.07.14-02.07.18 (EUR)]

Grant: GA AV ČR(CZ) IAA1057202

Matějček, J. - Nanobashvili, S. - Ctibor, P. - Brožek, V. - Neufuss, K. - Chráska, P.

Properties of Boron Carbide Coatings and Free-Standing Parts Prepared by WSP(r).

In: *Materials Week 2001*. - Franfurkt, Werkstoff-Informationsgesellschaft 2002. - S. článek č.914.

[Materials Week 2001.. Mnichov (DE), 01.10.01-01.10.04 (WRD)]

Grant: GA ČR(CZ) GA104/01/0149

Matějček, J. - Neufuss, K. - Ctibor, P. - Rohan, P. - Dubský, J. - Chráska, P. - Brožek, V.

WSP-Sprayed Boron Carbide Coatings for Fusion Applications.

In: *Proceedings of International Thermal Spray Conference 2002*. - (Ed. Lugscheider, E.; Berndt, C.C.). - Düsseldorf, DVS 2002. - S. 1-5.

[International Thermal Spray Conference.. Essen (DE), 02.03.04-02.03.06 (WRD)]

Grant: GA ČR(CZ) GA104/01/0149

Neufuss, K. - Brožek, V.

Brousící nástroj vhodný zejména pro broušení skla a keramiky. Praha 8, Za Slovankou 3, Ústav fyziky plazmatu AV ČR 2002. - 4 s.

Sember, V. - Gravelle, D. V. - Boulos, M. I.

Spectroscopic study of supersonic plasma jet generated by ICP torch with convergent-divergent (Laval) nozzle.

In: *Proceedings of 15th International Symposium on Plasma Chemistry*. - (Ed. Bouchoule, A.; Pouvesle, J.M.; Thomann, A.L.; Bauchire, J.M.; Robert, E.). - Orléans, Organizing committee of the 15th International symposium on plasma chemistry 2002. - S. 25-31.

[International Symposium on Plasma Chemistry/15th./. Orléans (FR), 01.07.09-01.07.13 (EUR)]