

Publications in Refereed Journals

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

Improvement in boron nitride ceramics prepared by electroconsolidation.

Ceramics-Silikáty, **47** [4] 135-140 (2003).

Grant: GA ČR(CZ) GA104/01/0149

[Impact factor:0.132(92) 0.162(93) 0.099(94) 0.058(95) 0.207(96) 0.098(97) 0.152(98) 0.208(99) 0.167(00) 0.259(01) 0,354(02)]

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

Improvement in Boron Nitride Ceramics Prepared by Electroconsolidation.

Ceramics-Silikáty, **47** [4] 131-136 (2003).

[Impact factor:0.304(91) 0.321(92) 0.184(93) 0.220(94) 0.289(95) 0.186(96) 0.159(97) 0.108(98) 0.190(99) 0.278(00) 0.317(01) 0,336(02)]

Jeništa, J.

The Effect of Different Regimes of Operation on Parameters of a Water-Vortex Stabilized Electric Arc.

Journal of High Temperature Material Processes, **7** [1] 11-16 (2003).

Grant: GA ČR(CZ) GA202/02/1027

[Impact factor: 0.076(99) 0.151(00) 0.342(01) 0,225(02)]

Jeništa, J.

Water-Vortex Stabilized Electric Arc: III. Radial energy transport determination of water-vapour-boundary and arc performance.

Journal of Physics D. D:Applied Physics, **36** [23] 2995-3006 (2003).

Grant: GA ČR(CZ) GA202/02/1027

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

Kopecký, V. - Hrabovský, M.

Determination of flow velocity from analysis of hydrodynamic oscillations of thermal plasma jet.

High Temperature Material Processes An International Journal, **7** [1] 23-28 (2003).

Grant: GA ČR(CZ) GA202/01/1563

[Impact factor: 0.076(99) 0.151(00) 0.342(01) 0,225(02)]

Sember, V.

Spectroscopic study of thermal plasma jet generated by a hybrid water-argon stabilized DC arc torch.

High Temperature Material Processes, **7** [1] 17-22 (2003).

Grant: GA AV ČR(CZ) KSK2043105; GA ČR(CZ) GA202/01/1563

[Impact factor: 0.076(99) 0.151(00) 0.342(01) 0,225(02)]

Vacík, M. - Hofman, R. - Neufuss, K. - Nohava, J. - Brožek, V.

Strukturní změny keramických žárových nástřiků po reaktivní impregnaci.

Chemické listy, **97** [8] 874-888 (2003).

[Zjazd chemických spoločností/55./. Košice (SK), 03.09.08-03.09.12 (EUR)]

[Impact factor:0.304(91) 0.321(92) 0.184(93) 0.220(94) 0.289(95) 0.186(96) 0.159(97) 0.108(98) 0.190(99) 0.278(00) 0.317(01) 0,336(02)]

Publications in Proceedings of International Conferences

Brožek, V. - Janča, J.

Plasmachemical Reactors for Special Syntheses and Decompositions.

In: *ECCE 4th European Congress of Chemical Engineering*. - Granada, - 2003. - S. 62.

[European Congress of Chemical Engineering/4th./. Granada (ES), 03.09.21-03.09.25 (EUR)]

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In: *ECCE 4th European Congress of Chemical Engineering*. - Granada, - 2003. - S. 79.

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

Investigation of Anode Attachment in dc Arc Plasma Spraying Torch with External Anode.

In: *Proceedings of 16th International Symposium on Plasma Chemistry/Abstracts and Full-Papers CD*. - (Ed. d'Agostino, R.; Favia, P.; Fracassi, F.; Palumbo, F.). - Bari, Department of Chemistry, University of Bari 2003. - S. 261.

[International Symposium on Plasma Chemistry/16th./. Taormina (IT), 03.06.22-03.06.27 (WRD)]

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

Investigation of Anode Attachment in dc Arc Plasma Spraying Torch with External Anode.

In: *Proceedings of 16th International Symposium on Plasma Chemistry*. - (Ed. d'Agostino, R.; Favia, P.; Fracassi, F.; Palumbo, F.). - Bari, Department of Chemistry, University of Bari 2003. - S. -.

[International Symposium on Plasma Chemistry/16th./. Taormina (IT), 03.06.22-03.06.27 (WRD)]

Grant: GA ČR(CZ) GA202/01/1563

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

Study of Anode Attachment Behavior and Its Influence on Plasma Jet in Water-Argon Plasma Torch.

In: *15th Symposium on Physics of Switching Arc*. - (Ed. Gross, B.; Vávra, Z.; Bartl, J.). - Brno, Department of Power Electrical and Electronic Engineering, University of Technology Brno 2003. - S. 44-47.

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Grant: GA AV ČR(CZ) IAA1057202

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Interaction between anode attachment and plasma jet in DC arc plasma spraying torch.

In: *International Conference on Physics of Low Temperature Plasma 03*. - (Ed. Zhovtyansky, V.A.). - Kyiv, NASU 2003. - S. 6-11.

[International Conference on Physics Low Temperature Plasma 03.. Kyiv (UA), 03.05.11-03.05.15 (WRD)]

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Chumak, O. - Kopecký, V.

Use of image-processing toolbox for powder particle diagnostics in plasma spray process.
In: *Sborník příspěvků 11.ročníku konference MATLAB 2003.* - Praha, - 2003. - S. 265-266.
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Ctibor, P. - Brožek, V. - Hofman, R.

Boron carbide synthesis at plasma spray process.
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Eliáš, M. - Janča, J. - Žila, J. - Brožek, V.

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

Determination of Basic Parameters of Hot Gas Mixture Free Jet.
In: *Proceedings of 16th International Symposium on Plasma Chemistry/Abstracts and Full-Papers CD.* - (Ed. d'Agostino, R.; Favia, P.; Fracassi, F.; Palumbo, F.). - Bari, Department of Chemistry, University of Bari 2003. - S. 128.
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[Symposium on Physics of Switching Arc/15th./ Nové Město na Moravě (CZ), 03.09.22-03.09.26 (WRD)]

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Heinz, J. - Hrabovský, M. - Jakubová, I. - Šenk, J.

The Method for Evaluation of Energy Processes in Intensively Blasted Electric Arc.

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The Method for Evaluation of Energy Processes in Intensively Blasted Electric Arc.

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Plasma jets generated in dc arcs with water stabilization-generation, properties and applications.

In: *International Conference on Physics Low Temperature Plasma 03.* - (Ed. Zhovtyansky, V.A.). - Kyiv, NASU 2003. - S. 20-23.

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

Properties of New Plasma Spraying Torch with Hybrid Gas/Liquid Arc Stabilization.

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Production of WC and WTi in Inductively Coupled and Microwave plasma Reactor.

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Jeništa, J.

Reabsorption of Radiation in Water-Vortex Stabilized Electric arc and Influence on arc Performance.

In: *15th Symposium on Physics of Switching arc Volume II:Invited Papers (Supplement)*. - (Ed. Gross, B.; Vávra, Z.; Bartl, J.). - Brno, Department of Power Electrical and Electronic Engineering, Brno University of Technology 2003. - S. 312-315.

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The Effect of Different Regimes of Operation on Parameters of a Water-Vortex Stabilized Electric Arc.

In: *Progress in Plasma Processing of Materials 2003*. - (Ed. Fauchais, P.). - New York, Begell House, Inc. 2003. - S. 231-236.

Grant: GA ČR(CZ) GA202/02/1027; GA ČR(CZ) GA202/01/1563

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In: *IEEE Conference Record-Abstracts*. - (Ed. Gitomer, S.J.). - Piscataway, IEEE Operations Center 2003. - S. 386.

[IEEE International Conference on Plasma Science/2003./. Jeju (KP), 03.06.02-03.06.05 (WRD)]

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Kavka, T. - Bouyerm, E. - Henne, R. H.

Studying of cold gas entrainment process in thermal plasma jet under soft vacuum conditions.

In: *International Conference on Physics of Low Temperature Plasma 03*. - (Ed. Zhovtyansky, V.A.). - Kyiv, NASU 2003. - S. 5-10.

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Entrainment of Ambient Air into H₂O/ArDC Arc Plasma Jet.

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Effect of Gas Flow on Plasma Jet Generated by Hybrid H₂O-Ar Torch.

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Determination of flow velocity from analysis of hydrodynamic oscillations of thermal plasma jet.

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

Comparative Analysis of Supersonic Plasma Jets Formed by DC Arc and ICP Torch.

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

Comparative analysis of supersonic plasma jets formed by DC arc and ICP torch.

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In: *Progress in Plasma Processing of Materials 2003.* - (Ed. Fauchais, P.). - New York, Begell House, Inc. 2003. - S. 41-46.

Grant: GA ČR(CZ) GA202/01/1563

Sember, V. - Kavka, T. - Kopecký, V. - Hrabovský, M.

Comparison of Spectroscopic and Enthalpy Probe Measurements in H₂O-Ar Thermal Plasma Jet.

In: *Proceedings of 16th International Symposium on Plasma Chemistry*. - (Ed. d'Agostino, R.; Favia, P.; Fracassi, F.; Palumbo, F.). - Bari, Department of Chemistry, University of Bari 2003. - S. -.

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Grant: GA ČR(CZ) GA202/01/1563; GA AV ČR(CZ) IAA1057202; GA AV ČR (CZ) KSK2043105

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In: *Proceedings of 15th Symposium on Switching Arc*. - (Ed. Gross, B.; Vávra, Z.; Bartl, J.). - Brno, Department of Power Electrical and Electronic Engineering and Communication, Brno University of Technology 2003. - S. 211-214.

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Comparison of spectroscopic and enthalpy probe measurements in H₂O-Ar thermal plasma jet.

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