

## Publications in Refereed Journals

Gregor J., Jakubová I., Mendl T., Kavka T.: **The character of flow in the free jet close to an arc heater output.** *High Temperature Materials and Processes* **13** [2] (2009) 155-164. [High Technology Plasma Conference/10th./ Patras, 07.07.2008-11.07.2008]

Gregor J., Jakubová I., Šenk J., Mašláni A.: **Analysis of radial energy loss in an arc heater channel.** *High Temperature Materials and Processes* **13** [2] (2009) 179-188. [European High Temperature Plasma Processes (HTPP)/10th./ Patras (Patras University), 07.07.2008-11.07.2008]

Hrabovský M.: **Thermal Plasma Generators with Water Stabilized Arc.** *Open Plasma Physics Journal* **2** [1] (2009) 99-104.

Hrabovský M., Hlína M., Konrád M., Kopecký V., Kavka T., Chumak O., Mašláni A.: **Thermal Plasma Gasification of Biomass for Fuel Gas Production.** *High Temperature Materials and Processes* **13** [3] (2009) 255-266.

Hrabovský M., Kopecký V., Chumak O., Kavka T., Mašláni A., Sember V., Ctibor P.: **Effect of Fluctuations of DC Current on Properties of Plasma Jet Generated in Plasma Spraying Torch with Gerdien Arc.** *High Temperature Materials and Processes* **13** [2] (2009) 229-240.

Mašláni A., Sember V.: **Rotational distribution of OH molecules in supersonic thermal plasma jet.** *High Temperature Materials and Processes* **13** [2] (2009) 205-215. [European High Temperature Plasma Processes (HTPP)/10th./ Patras (Patras University), 07.07.2008-11.07.2008]

Sember V., Mašláni A.: **A simple spectroscopic method for determining the temperature in H<sub>2</sub>O-Ar thermal plasma jet.** *High Temperature Materials and Processes* **13** [2] (2009) 217-228. [European High Temperature Plasma Processes (HTPP)/10th./ Patras (Patras University), 07.07.2008-11.07.2008]

## Publications in Proceedings of International Conferences

Brožek V., Hlína M., Hrabovský M.: **Využití záření vodou stabilizovaného plazmatu k likvidaci ve vodě rozpustných organických látek.** Odpadové fórum 2009 - sborník přednášek. Praha : PCHE-PetroChemEng, 2009. S. 3386-3393. ISBN 978-80-02-02108-7. [ EN ] [Odpadové fórum. Milovy (CZ), 22.04.2009-24.04.2009]

Chumak O., Hrabovský M., Sforza T., Falier J.: **INITIATION OF ELECTRIC ARC IN ARGON FLOWING IN WATER CHANNEL.** XVIIIth Symposium on Physics of Switching Arc. Brno : Vysoké učení technické v Brně, 2009 - (Aubrecht, V.; Bartlová, M.) S. 138-141. ISBN 978-80-214-3793-7.

[Symposium on Physics of Switching Arc/18th./ Nové Město na Moravě (CZ), 07.09.2009-11.09.2009]

Chumak O., Kopecký V., Kavka T., Hrabovský M.: **Effect of anode attachment and hydrodynamic instability on fluctuations of thermal plasma jet.** 17th Symposium on Application of Plasma Processes, Book of Contributed Papers. Bratislava : Department of Experimental Physics Comenius University, 2009 - (Papp, V.; Orshzagh, J.; Matúška, J.; Matejčík, Š.) S. 171-172. ISBN 978-80-89186-45-7.

[Symposium on Application of Plasma Processes, SAPP/17th./ Liptovský Ján (SK), 17.01.2009-22.01.2009]

Chumak O., Kopecký V., Kavka T., Hrabovský M.: **Role of anode attachment and hydrodynamic instabilities in disturbing of thermal plasma flow.** Proceedings of the 19th International Symposium on Plasma (ISPC). Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Böke, M.; Schulz-von der Gathen, V.) P1.5.32.-P1.5.32. ISBN 978-0-471-72001-0. - (ISPC).

[International Symposium on Plasma Chemistry/19th./ Bochum (DE), 26.07.2009-31.07.2009]

Doleček R., Lédl V., Kopecký V., Psota P., Václavík J., Vít T.: **Prospects of digital holographic interferometry in heat transfer measurement.** Experimental Fluid Mechanics 2009. Liberec : Technical University of Liberec, 2009 - (Vít, T.; Dančová, P.; Dvořák, V.) S. 25-33. ISBN 978-80-7372-538-9.

[International Conference Experimental Fluid Mechanics 2009. Liberec (CZ), 25.11.2009-27.11.2009]

Hirka I., Konrád M., Hrabovský M.: **Modelling of gasification of wooden particles by steam plasma jet in thermal plasma reactor with use of three component wood model.** 19th International Symposium on Plasma Chemistry. Bochum : University of Bochum, 2009. P3.16.07. ISBN 978-0-471-72001-0.

[International Symposium on Plasma Chemistry/19th./ Bochum (DE), 26.07.2009-31.07.2009]

Hlína M., Domlátil J., Brožek V., Hrabovský M.: **Gerdien Arc as a Tool for Decomposition of Water-soluble Organic Compounds.** ISPC-Proceedings International Symposium on Plasma Chemistry. Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Winter, J.; Böke, M.; Schulz-von der Gathen, V.) P2.14.17--4. ISBN 978-0-471-72001-0. - (ISPC).

[International Symposium on Plasma Chemistry/19th./ Bochum (DE), 26.07.2009-31.07.2009]

Hlína M., Hrabovský M., Brožek V., Domlátil J.: **Degradation of water-soluble organic compounds in plasma torch.** 17th Symposium Workshop on Research of Plasma Physics, SAPP, Book of Contributed Papers. Bratislava : Department of Experimental Physics Comenius University, 2009 - (Papp, P.) S. 111-112. ISBN 978-80-89186-45-7.

[Symposium Workshop on Research of Plasma Physics/17th./ Liptovský Ján (CZ), 17.01.2009-22.01.2009]

Hrabovský M.: **Production of syngas by gasification of waste biomass using CO<sub>2</sub> as oxidizing medium.** Workshop Carbon Dioxide: A new material for energy storage.

Strasbourg : European Materials Research Society, 2009 - (Amouroux, J.) S. 61-63. ISBN N. [E-MRS Spring Conference 2009. Strasbourg (FR), 08.06.2009-12.06.2009]

Hrabovský M., Konrád M., Hlína M., Kavka T., Kopecký V., Chumak O.: **Energy balance and kinetics of gasification of biomass particles in thermal plasma flow.** 19th International Symposium on Plasma Chemistry. Bochum : University of Bochum, 2009. P3.16.05. ISBN 978-0-471-72001-0.  
[International Symposium on Plasma Chemistry/19th./. Bochum (DE), 26.07.2009-31.07.2009]

Jeništa J., Hrabovský M., Nishiyama H., Takana H.: **Modelling of Supersonic and Turbulent Hybrid Arc for Biomass Gasification.** Proceedings of the ninth international symposium on advanced fluid information and transdisciplinary fluid integration. Sendai : Tokohu University, 2009. S. 40-41. ISSN 1344-2236. - (Proceedings of Symposium on Computational Fluid Science).  
[International symposium on advanced fluid information and transdisciplinary fluid integration (AFI 9)/9th./. Sendai (JP), 04.11.2009-06.11.2009]

Jeništa J., Křenek P., Hrabovský M., Kavka T., Sember V., Mašláni A., Nishiyama H., Takana H., Bartlová M., Aubrecht V.: **Integrated parametric study of hybrid-stabilized argon-water arc under subsonic and supersonic regimes.** ISPC-proceedings 19h International Symposium on Plasma Chemistry. Bochum : University of Bochum, 2009 - (von Keudell, A.; Winter, J.; Böke, M.; Schulz-von der Gathen, V.) O2.10. ISBN 978-0-471-72001-0.  
[International Symposium on Plasma Chemistry/19th./. Bochum (DE), 26.07.2009-31.07.2009]

Jeništa J., Křenek P., Hrabovský M., Kavka T., Sember V., Mašláni A., Nishiyama H., Takana H., Bartlová M., Aubrecht V.: **Integrated parametric study of hybrid-stabilized argon-water arc under subsonic and supersonic regimes.** Proceedings of the 6th international conference on flow dynamics (ICFD 6). Sendai : GCOE Institute of Fluid Science TOHOKU UNIVERSITY, 2009. S. 156-157. ISBN N.  
[International conference on flow dynamics (ICFD 6)/6th./. Sendai (JP), 04.11.2009-06.11.2009]

Kavka T., Chumak O., Mašláni A., Hrabovský M., Kopecký V., Křenek P.: **Transition of thermal plasma jet from subsonic to supersonic regime.** ISPC-Proceedings International Symposium on Plasma Chemistry. Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Winter, J.; Böke, M.; Schulz-von der Gathen, V.) S. 586-586. ISBN 978-0-471-72001-0. - (ISPC).  
[International Symposium on Plasma Chemistry/19th./. Bochum (DE), 26.07.2009-31.07.2009]

Kavka T., Hrabovský M., Chumak O., Kopecký V., Mašláni A., Konrád M., Pauser H., Heinrich M., Nimmervoll R.: **Anode processes during pilot arcing in cutting torch.** Proceedings of the 19th International Symposium on Plasma Chemistry. Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Winter, J.; Böke, M.; Schulz-von der Gathen, V.) P2.11.31. ISBN N. - (ISPC. 19).  
[International Symposium on Plasma Chemistry/19th./. Bochum (DE), 26.07.2009-31.07.2009]

Kavka T., Mašláni A., Hrabovský M.: **Evaluation of characteristics of plasma generated in DC arc torch with gas-water stabilization of arc.** 17th Symposium on Application of Plasma Processes, Book of Contributed Papers. Bratislava : Department of Experimental Physics Comenius University, 2009 - (Papp, V.; Orshzágh, J.; Matúška, J.; Matejčík, Š.) S. 173-174. ISBN 978-80-89186-45-7.

[Symposium on Application of Plasma Processes, SAPP/17th./ Liptovský Ján (SK), 17.01.2009-22.01.2009]

Kavka T., Mašláni A., Kopecký V., Hrabovský M., Chumak O.: **Interaction of thermal plasma jet generated by hybrid gas-water torch with the surrounding.** Proceedings of the XXIX International Conference on the Phenomena in the Ionized Gases, Disc of Proceedings. Cancún : Institute of Physics(IoP), 2009. PB11-4-11-8. ISBN N. - (ICPIG. 29).

[International Conference on the Phenomena in the Ionized Gases, ICPIG XXIX/29th./ Cancún (MX), 12.07.2009-17.07.2009]

Konrád M., Hrabovský M., Hlína M., Kopecký V.: **Biomass Gasification in Thermal Plasma Reactor.** Book of Contributed Papers: 17th Symposium on Application of Plasma Processes. Bratislava : Comenius University Bratislava, 2009 - (Papp, P.; Országh, J.; Matúška, J.; Matejčík, Š.) S. 115-116. ISBN 978-80-89186-45-7.

[Symposium on Application of Plasma Processes/17th./ Liptovský Ján (SK), 17.01.2009-22.01.2009]

Kopecký V., Hrabovský M.: **Effect of arc current modulation on plasma jet fluctuations in plasma spraying torch.** Proceedings of the 19th International Symposium on Plasma (ISPC). Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Böke, M.; Schulz-von der Gathen, V.) P1.5.16-P1.5.16. ISBN 978-0-471-72001-0. - (ISPC).

[International Symposium on Plasma Chemistry - ISPC /19./ Bochum (DE), 26.07.2009-31.07.2009]

Lédl V., Václavík J., Rusín L., Erhart J., Kopecký V.: **Measurement of Piezoactuator Used for Moving the Fabric by Frequency Shifted Digital Holography.** Proceedings of Structure and Structural Mechanics of Textile Fabrics conference 2009. Liberec : Technická Universita Liberec, 2009. S. 114-116. ISBN 978-80-7372-542-6.

[Structure and Structural Mechanics of Textile Fabrics 2009. Liberec (CZ), 03.12.2009-04.12.2009]

Mašláni A., Sember V.: **Detection of NH Molecular Spectra In Expanding Thermal Plasma Jet.** Proceedings of the 19th International Symposium on Plasma Chemistry. Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Winter, J.; Böke, M.; Schulz-von der Gathen, V.) P2.2.13-P2.2.13. ISBN N. - (ISPC. 19).

[International Symposium on Plasma Chemistry/19th./ Bochum (DE), 26.07.2009-31.07.2009]

Sember V., Mašláni A., Křenek P., Hrabovský M.: **Optical emission spectroscopic study of a steam arc cutting torch.** Proceedings of the 19th International Symposium on Plasma (ISPC). Bochum : Ruhr-University Bochum, 2009 - (von Keudell, A.; Böke, M.; Schulz-von der Gathen, V.) P1.3.38-P1.3.38. ISBN 978-0-471-72001-0. - (ISPC).

[International Symposium on Plasma Chemistry (ISPC)/19th./ Bochum (DE), 26.07.2009-31.07.2009]

Sforza T., Charlier C., Hrabovský M., Chumak O.: **Thermal Plasma Assisted Gasification of Polymers**. WDS'09 Proceedings of Contributed Papers. Prague : MATFYZPRESS, Prague, 2009 - (Šafránková, J.; Pavlů, J.) S. 176-181. ISBN 978-80-7378-102-6.  
[Annual Conference of Doctoral Students - WDS 2009 /18th./. Prague (CZ), 02.06.2009-05.06.2009]