

Publications of plasma medicine research

Note: the following publications refer to work done with the kINPen® VET, kINPen® MED or the previous kINPen® 09 model.

Mai 2019

A

Almansoori, A.; Masters, R.; Abrams, K.; Schäfer, J.; Gerling, T.; Majewski, C.; Rodenburg, C.: **Surface modification of the laser sintering standard powder polyamide 12 by plasma treatments**, *Plasma Process. Polym.* 15(7), 2018

Arndt, S.; Schmidt, A.; Karrer, S.; von Woedtke, T.: **Comparing two different plasma devices kINPen and Adtec SteriPlas regarding their molecular and cellular effects on wound healing**, *Clin. Plasma Med.* 9 (2018), p. 24-33

B

Bansemer R., Schmidt-Bleker A., Van Rienen U., Weltmann K.-D.: **Investigation and control of the O₃- to NO-transition in a novel sub-atmospheric pressure dielectric barrier discharge**. *Plasma Sources Sci. Technol.* 26 (2017) 065005.

Bekeschus S., Iséni S., Reuter S., Masur K., Weltmann K.-D.: **Nitrogen Shielding of a Plasma Jet and its Effects on Human Immune Cells**. *IEEE Trans. Plasma Sci.*, (2014).

Bekeschus S., Kolata J., Winterbourn C., Kramer A., Turner R., Weltmann K.-D., Bröker B., Masur K.: **Hydrogen peroxide: A central player in physical plasma-induced oxidative stress in human blood cells**. *Free Rad. Res.* 48 (2014), p. 542-549.

Bekeschus S., Kolata J., Müller A., Kramer A., Weltmann K.-D., Bröker B., Masur K.: **Differential Viability of Eight Human Blood Mononuclear Cell Subpopulations After Plasma Treatment**. *Plasma Med.* 3 (2013), p. 1-13.

Bekeschus S., Rödder K., Schmidt A., Stope M. B., von Woedtke Th., Miller V., Fridman A., Weltmann K.-D., Masur K., Metelmann H.-R., Wende K., Hasse S.: **Cold physical plasma selects for specific T helper cell subsets with distinct cells surface markers in a caspase-dependent and NF-κB-independent manner**. *Plasma Process. Polym.* 2016; 13: 1144–1150.

Bekeschus S., Schmidt A., Bethge L., Masur K., von Woedtke Th., Hasse S., Wende K.: **Redox Simulation of Human THP-1 Monocytes in Response to Cold Physical Plasma**. *Oxid. Med. Cell. Longev.* 2016 (2016) 5910695.

Bekeschus S., Schmidt A., Jablonowski H., Bethge L., Hasse S., Wende K., Masur K., von Woedtke Th., Weltmann K.-D.: **Environmental Control of an Argon Plasma Effluent and its Role in THP-1 Monocyte function.** In: *IEEE Transactions on Plasma Science*, submitted (2016).

Bekeschus S., Schmidt A., Napp M., Kramer A., Kerner W., Von Woedtke Th., Wende K., Hasse S., Masur K.: **Distinct cytokine and chemokine patterns in chronic diabetic ulcers and acute wounds.** *Experimental Dermatology* 2017; 26: 145–147.

Bekeschus S., Schmidt A., Weltmann K.-D., von Woedtke Th.: **The Plasma Jet kINPen - A Powerful Tool for Wound Healing.** In: *Clinical Plasma Medicine* (2016), 4(1).

Bekeschus S., von Woedtke Th., Kramer A., Weltmann K.-D., Masur K.: **Cold Physical Plasma Treatment Alters Redox Balance in Human Immune Cells.** *Plasma Med.* 15 (2013), p. 197-208.

Bekeschus S., Winterbourn C.C., Kolata J., Hasse S., Bröker B.M., Parker H.A.: **Neutrophil extracellular trap formation is elicited in response to cold physical plasma.** Submitted - *Journal of Leukocyte Biology*.

Bekeschus, S.; Käding, A.; Schröder, T.; Wende, K.; Hackbarth, C.; Liedtke, K. R.; van der Linde, J.; von Woedtke, T.; Heidecke, C.-D.; Partecke, L.-I.: **Cold Physical Plasma-Treated Buffered Saline Solution as Effective Agent Against Pancreatic Cancer Cells,** *Anticancer Agents Med. Chem.* (2018), p. 824-831

Bekeschus, S.; Freund, E.; Wende, K.; Gandhirajan, R. K.; Schmidt, A.: **Hmox1 Upregulation Is a Mutual Marker in Human Tumor Cells Exposed to Physical Plasma-Derived Oxidants,** *Antioxidants* 7 (2018), p. 151

Bekeschus, S.; Clemen, R.; Metelmann, H.-R.: **Potentiating anti-tumor immunity with physical plasma,** *Clin. Plasma Med.* 12 (2018), p. 17-22

Bekeschus, S.; Scherwietes, L.; Freund, E.; Liedtke, K. R.; Hackbarth, C.; von Woedtke, T.; Partecke, L.-I.: **Plasma-treated medium tunes the inflammatory profile in murine bone marrow-derived macrophages,** *Clin. Plasma Med.* 11 (2018), p. 1-9

Bekeschus, S.; Schmidt, A.; Kramer, A.; Metelmann, H.-R.; Adler, F.; von Woedtke, T.; Niessner, F.; Weltmann, K.-D.; Wende, K.: **High Throughput Image Cytometry Micronucleus Assay to Investigate the Presence or Absence of Mutagenic Effects of Cold Physical Plasma,** *Environ. Mol. Mutagen.* 59(4) (2018), p. 268-277

Bekeschus, S.; Mueller, A.; Miller, V.; Gaipf, U.; Weltmann, K.-D.: **Physical Plasma Elicits Immunogenic Cancer Cell Death and Mitochondrial Singlet Oxygen,** *IEEE Trans. Radiat. Plasma Med. Sci.* 2(2) (2018), p. 138-146

Bekeschus, S.; Lackmann, J.-W.; Gümbel, D.; Napp, M.; Schmidt, A.; Wende, K.: **A Neutrophil Proteomic Signature in Surgical Trauma Wounds,** *Int. J. Mol. Sci.* 19 (2018), p. 761-784

Bekeschus, S.; Wulf, C. P.; Eric Freund, E.; Koensgen, D.; Mustea, A.; Weltmann, K.-D.; Stope, M. B.: **Plasma Treatment of Ovarian Cancer Cells Mitigates Their Immuno-Modulatory Products Active on THP-1 Monocytes,** *Plasma* 1 (2018), p. 201-217

Bekeschus, S.; Lin, A.; Fridman, A.; Wende, K.; Weltmann, K.-D.; Miller, V.: **A Comparison of Floating-Electrode DBD and kINPen Jet: Plasma Parameters to Achieve Similar Growth Reduction in Colon Cancer Cells Under Standardized Conditions**, *Plasma Chem. Plasma Process.* 38(1) (2018), p. 1-12

Bekeschus, S.; Brüggemeier, J.; Hackbarth, Ch.; Weltmann, K.-D.; von Woedtke, Th.; Partecke, L.-I.; van der Linde, J.: **The feed gas composition determines the degree of physical plasma-induced platelet activation for blood coagulation**, *Plasma Sources Sci. Technol.* 27 (2018)

Bender C., Hübner N.-O., Weltmann K.-D., Scharf C., Kramer A.: Tissue tolerable plasma and polihexanide: **Are synergistic effects possible to promote healing of chronic wounds? In vivo and in vitro results**. In: Z. Machala, K. Hensel, Y. Akishev (Eds.): *Plasma for bio-decontamination, medicine and food security*, NATO Science for Peace and Security Series – A: Chemistry and Biology, Springer 2012, pp. 321-334.

Bender C., Partecke L., Kindel E., Döring F., Lademann J., Heidecke C.-D., Kramer A., Hübner N.-O.: **The modified HET-CAM as a model for the assessment of the inflammatory response to tissue tolerable plasma**. *Toxicology in Vitro* 25 (2011) 530-537.

Bender C., Matthes R., Kindel E., Kramer A., Lademann J., Weltmann K.-D., Eisenbeiß W., Hubner N.-O.: **The irritation potential of non-thermal atmospheric pressure plasma in the HET-CAM**. *Plasma Process. Polym.* 2010, 7, 318–326.

Bender C., Kramer A.: **Optionen der antiseptischen Wundbehandlung in der Kleintierpraxis unter besonderer Berücksichtigung der Gewebeverträglichkeit**. *Kleintierpraxis* (06/2017) 373-392.

Bergemann C., Quade A., Kunz F., Klinkenberg E.-D., Ofte S., Laue M., Schröder K., Weißmann V., Hansmann H., Weltmann K.-D., Nebe J.: **Ammonia plasma functionalized polycarbonate surfaces improve cell migration inside an artificial 3D-cell culture modul**. *Plasma Process. Polym.* 9 (2012) 261-272.

Blackert S., Haertel B., Wende K., von Woedtke Th., Lindequist U.: **Influence of non-thermal atmospheric pressure plasma on cellular structures and processes in human keratinocytes (HaCaT)**. *J. Dermatol. Sci.* 70 (2013), p. 173-181.

Brandenburg R., Lange H., von Woedtke Th., Stieber M., Kindel E., Ehlbeck J., Weltmann K.-D.: **Antimicrobial effects of UV and VUV radiation of nonthermal plasma jets**. *IEEE Trans. Plasma Sci.* 37 (2009) 877-883 (Special Issue: "Atmospheric-Pressure Plasmas: Science and Applications").

Bruggeman P. J., Kushner M. J., Locke B. R., Gardeniers J. G. E., Graham W. G., Graves D. B., Hofman-Caris R. C. H. M., Maric D., Reid J. P., Ceriani E., Fernandez Rivas D., Foster J. E., Garrick S. C., Gorbanev Y., Hamaguchi S., Iza F., Jablonowski H., Klimova E., Kolb J., Krcma F., Lukes P., Machala Z., Marinov I., Mariotti D., Mededovic Thagard S., Minakata D., Neyts E. C., Pawlat J., Lj Petrovic Z., Pflieger R., Reuter S., Schram D. C., Schröter S., Shiraiwa M., Tarabová B., Tsai P. A., Verlet J. R. R., von Woedtke Th., Wilson K. R., Yasui K., Zvereva G.: **Plasma-liquid interactions: a review and roadmap**. *Plasma Sources Sci. Technol.* 25 (2016) 053002 (59pp).

Bundscherer L., Bekeschus S., Tresp H., Hasse S., Reuter S., Weltmann K.-D., Lindequist U., Masur K.: **Viability of Human Blood Leukocytes Compared with Their Respective Cell Lines after Plasma Treatment**. *Plasma Med.* 3 (2013), p. 71-80.

Bundscherer L., Wende K., Ottmüller K., Barton A., Schmidt A., Bekeschus S., Hasse S., Weltmann K.-D., Masur K., Lindequist U.: **Impact of non-thermal plasma treatment on MAPK signaling pathways of human immune cell lines.** *Immunobiology* 218 (2013), p. 1248-1255.

Bussiahn R., Lembke N., Gesche R., von Woedtke Th., Weltmann K.-D.: **Plasmaquellen für biomedizinische Applikationen.** *Hyg Med* 38 (2013) 212-216 (*Schwerpunktheft Plasmamedizin*).

Bussiahn R., Brandenburg R., Gerling T., Kindel E., Lange H., Lembke N., Weltmann K.-D., von Woedtke Th., Kocher T.: **The hairline plasma: An intermittent negative dc-corona discharge at atmospheric pressure for plasma medical applications.** *Appl. Phys. Lett.* 96 (2010) 143701.

Bussiahn R., Kindel E., Lange H., Weltmann K.-D.: **Spatially and temporally resolved measurements of argon metastable atoms in the effluent of a cold atmospheric pressure plasma jet.** *J Phys D: Appl. Phys.* 43 (2010) 165-201.

C

Clinical Plasma Medicine Core Group (Emmert S., Isbary G., Kluschke F., Lademann J., Podmelle F., Metelmann H.-R., Daeschlein G., Masur K., von Woedtke Th., Weltmann K.-D.): **Clinical plasma medicine – position and perspectives in 2012. Paper of consent, result of the workshop "Clinical Concepts in Plasma Medicine"**, Greifswald April 28th, 2012. *Clinical Plasma Medicine* 1 (2013) 3-4.

D

Daeschlein G., Napp M., von Podewils S., Lutze S., Emmert S., Lange A., Klare I., Haase H., Gümbel D., von Woedtke Th., Jünger M.: **In vitro susceptibility of multidrug resistant skin and wound pathogens against low temperature atmospheric pressure plasma jet (APPJ) and dielectric barrier discharge plasma (DBD).** *Plasma Process. Polym.* 11 (2014), p. 175-183.

Daeschlein G., Napp M., von Podewils S., Scholz S., Arnold A., Emmert S., Haase H., Napp J, Gümbel D., von Woedke Th., Jünger M.: **Antimicrobial efficacy of a historical violet wand plasma in comparison with modern plasma devices, low temperature atmospheric pressure plasma jet (APPJ) and dielectric barrier discharge (DBD) device.** *Plasma Sources Sci. Technol.*, 2014; *PSST-100128*, in press.

Daeschlein G., Scholz S., Ahmed R., A, Majumdar, von Woedtke Th., Haase H., Niggemeier M., Kindel E., Brandenburg R., Weltmann K.-D., Jünger M.: **Cold plasma is well-tolerated and does not disturb skin barrier or reduce skin moisture.** *JDDG* 10 (2012) 509-515.

Daeschlein G., Scholz S., Ahmed R., von Woedtke Th., Haase H., Niggemeier M., Kindel E., Brandenburg R., Weltmann K.-D., Jünger M.: **Skin decontamination by low-temperature atmospheric pressure plasma jet and dielectric barrier discharge plasma.** *J. Hosp. Infect.* 81 (2012) 177-183.

Daeschlein G., Scholz S., Arnold A., S. von Podewils, Haase H., Emmert S., von Woedtke Th., Weltmann K.-D., Jünger M.: **In vitro susceptibility of important skin and wound pathogens against**

low temperature atmospheric pressure plasma jet (APPJ) and dielectric barrier discharge plasma (DBD). *Plasma Process. Polym.* 9 (2012) 380-389.

Daeschlein G., Scholz S., Emmert S., von Podewils S., Haase H., von Woedtke T., Weltmann K.-D., Jünger M.: **Plasma medicine in Dermatology: Basic antimicrobial efficacy testing as prerequisite to clinical plasma therapy.** *Plasma Medicine* 2 (2012) 33-69.

Daeschlein G., Scholz S., Lutze S., Arnold A., von Podewils S., Kiefer T., Tueting T., Hardt O., Haase H., Grisk O., Langner S., Ritter C., von Woedtke Th., Jünger M.: **Comparison between cold plasma, electrochemotherapy and combined therapy in a melanoma mouse model.** *Exp. Dermatol.* 22 (2013), p. 582-586.

Daeschlein G., Scholz S., von Podewils S., Arnold A., Klare I., Haase H., Emmert S., von Woedtke Th., Jünger M.: **Cold plasma - a new antimicrobial treatment tool against multidrug resistant pathogens. In: Worldwide Research Efforts in the Fighting against Microbial Pathogens: From Basic Research to Technological Developments.** A. Mendez-Vilas (ed.), Pub. BrownWalker Press, 2014. ISBN-13: 978-1-61233-636-7.

Daeschlein G., von Woedtke Th., Kindel E., Brandenburg R., Weltmann K.-D., Jünger M.: **Antibacterial activity of atmospheric pressure plasma jet (APPJ) plasma against relevant wound pathogens in vitro.** *Plasma Process. Polym.* 7 (2010) 224-230 (Special Issue "Plasma Medicine").

Daeschlein G., Scholz S., von Woedtke Th., Niggemeier M., Kindel E., Brandenburg R., Weltmann K.-D., Jünger M.: **In vitro Killing of Clinical Fungal Strains by Low-Temperature Atmospheric-Pressure Plasma Jet.** *IEEE Trans. Plasma Sci.* 39 (2011) 815-821.

Daeschlein, G.; Rutkowski, R.; Lutze, S.; von Podewils, S.; Sicher, C.; Wild, T.; Metelmann, H.-R.; von Woedtke, T.; Jünger, M.: **Hyperspectral imaging: innovative diagnostics to visualize hemodynamic effects of cold plasma in wound therapy,** *Biomed. Eng.-Biomed. Tech.* 63 (2018), p. 603-608

Dosdall, R.; Preuß, F.; Hahn, V.; Schlüter, R.; Schauer, F.: **Decay of the water reed Phragmites communis caused by the white-rot fungus Phlebia tremellosa and the influence of some environmental factors,** *Appl. Microbiol. Biotechnol.* 102(1), 2018, p. 345-354

Dünnbier M., Becker M. M., Iseni S., Bansemer R., Loffhagen D., Reuter S., Weltmann K.-D.: **Stability and excitation dynamics of an argon micro-scaled atmospheric pressure plasma jet.** In: *Plasma Sources Science and Technology*, 24(2015), p.065018 doi:10.1088/0963-0252/24/6/065018.

Duske K., Koban I., Kindel E., Schröder K., Nebe B., Holtfreter B., Jablonowski L., Weltmann K.-D., Kocher T.: **Atmospheric plasma enhances wettability and cell spreading on dental implant metals.** *J. Clin. Periodontol.* 39 (2012) 400-407.

Duske K., Wegner K., Donnert M., Kunert U., Podbielski A., Kreikemeyer B., Gerling T., Weltmann K.-D., Nebe B., Bader R.: **Comparative In Vitro Study of Different Atmospheric Pressure Plasma Jets**

Concerning their Antimicrobial Potential and Cellular Reaction. *Plasma Process. Polym.* 2015, 12, 1050–1060.

E

Ehlbeck J., Brandenburg R., von Woedtke Th., Krohmann U., Stieber M., Weltmann K.-D.: **PLASMOSE - antimicrobial effects of modular atmospheric plasma sources.** *GMS Krankenhaushyg Interdiszip 3 (2008) Doc14.*

Ehlbeck J., Rackow K., Andrasch M., Weltmann K.-D.: **Electron Density Determination by Means of Tuneable 50 GHz and 150 GHz Interferometers.** *Contrib. Plasma Phys.* 51 (2011) 131-136.

Ehlbeck J., Schnabel U., Polak M., Winter J., von Woedtke Th., Brandenburg R., von dem Hagen T., Weltmann K.-D.: **Topical Review: Low Temperature Atmospheric Pressure Plasma Sources for Microbial Decontamination.** *J. Phys. D: Appl. Phys.* 44 (2011) 01300.

Emmert S., Isbary G., Kluschke F., Lademann J., Westermann U., Podmelle F., Metelmann HR., Daeschlein G., Masur K., von Woedtke Th., Weltmann K.-D.: **Clinical Plasma Medicine – Position and perspectives in 2012.** *Clinical Plasma Medicine*, 2013; 1, 3 - 4.

Engelowski, E.; Schneider, A.; Franke, M.; Xu, H.; Clemen, R.; Lang, A.; Baran, P.; Binsch, C.; Knebel, B.; Al-Hasani, H.; Moll, J. M.; Floß, D. M.; Lang, P. A.; Scheller, J.: **Synthetic cytokine receptors transmit biological signals using artificial ligands,** *Nat. Commun.* 9, 2018

F

Fiebrandt, M.; Lackmann, J.-W.; Stapelmann, K.: **From patent to product? 50 years of low-pressure plasma sterilization,** *Plasma Process. Polym.* 15, 2018

Finke B., Hempel F., Testrich H., Artemenko A., Rebl H., Kylián O., Meichsner J., Biederman H., Nebe B., Weltmann K.-D., Schröder K.: **Plasma processes for cell-adhesive titanium surfaces based on nitrogen-containing coatings.** *Surf. Coat. Technol.* 205 Suppl. 2(2011) S520-S524.

Finke B., Polak M., Hempel F., Rebl H., Zietz C., Stranak V., Lukowski G., Hippler R., Bader R., Nebe J., Weltmann K.-D., Schröder K.: **Antimicrobial potential of copper-containing titanium surfaces generated by ion implantation and dual high power impulse magnetron sputtering.** *Adv. Eng. Materials - Adv. Biomaterials* 14 (2012) B224-B230.

Finke B., Polak M., Hempel F., Schröder K., Lukowski G., Mueller W.D., Weltmann K.-D.: **Electrochemical assessment of Cu-PIII treated titanium samples for antimicrobial surfaces** *Mater. Sci. Forum* 706-709 (2012) 478-483.

Finke B., Testrich H., Rebl H., Walschus U., Schlosser M., Zietz C., Staehle S., Nebe J. B., Weltmann K.-D., Meichsner J., Polak M.: **Plasma-deposited fluorocarbon polymer films on titanium for preventing cell adhesion: a surface finishing for temporarily used orthopaedic implants.** *J. Phys. D: Appl. Phys.* 49 (2016) 234002 (14pp).

Fricke K., Duske K., Quade A., Nebe B., Schröder K., Weltmann K.-D., von Woedtke Th.: **Comparison of non-thermal Plasma Processes on the Surface Properties of Polystyrene and their Impact on Cell Growth.** *IEEE Transactions on Plasma Science*, Vol. 40, No. 11, Part 2, 2970-2979 (2012).

Fricke K., Reuter S., Tresp H., Schröder D., Schulz-von der Gathen V., Weltmann K.-D., von Woedtke Th.: **Investigation of Surface Etching of Poly(ether ether ketone) by Atmospheric Pressure Plasmas.** *IEEE Trans. Plasma Sci.* 40 (2012) 2900-2911.

Fricke K., Tresp H., Bussiahn R., Schröder K., von Woedtke Th., Weltmann K.-D.: **On the Use of Atmospheric Pressure Plasma for the Bio-Decontamination of Polymers and its Impact on their Chemical and Morphological Surface Properties.** *Plasma Chem. Plasma Process.* 32 (2012) 801-816.

Fricke K., Steffen H., von Woedtke Th., Schröder K., Weltmann K.-D.: **High Rate Etching of Polymers by Means of an Atmospheric Pressure Plasma Jet.** *Plasma Process. Polym.* 8 (2011) 51-58.

Fridman, A.; Lin, A.; Miller, V.; Bekeschus, S.; Wende, K.; Weltmann, K.-D.: **The Plasma Treatment Unit: An Attempt to Standardize Cold Plasma Treatment for Defined Biological Effects,** *PlasmaMed.* 8, 2018, p. 195-201

G

Gabler C., Zietz C., Göhler R., Fritsche A., Lindner T., Haenle M., Finke B., Meichsner J., Lenz S., Frerich B., Lüthen F., Nebe J.B., Bader R.: **Evaluation of osseointegration of titanium alloyed implants modified by plasma polymerization.** *Int. J. Mol. Sci.* 2014, 15(2), 2454-2464; doi:10.3390/ijms15022454.

Gaens W. V., Iseni S., Schmidt-Bleker A., Weltmann K. D., Reuter S., Bogaerts A.: **Numerical analysis of the effect of nitrogen and oxygen admixtures on the chemistry of an argon plasma jet operating at atmospheric pressure.** *In: New Journal of Physics*, 17(2015), p.033003 doi:10.1088/1367-2630/17/3/033003.

Gandhirajan, R. K.; Rödder, K.; Bodnar, Y.; Pasqual-Melo, G.; Emmert, S.; Griguer, C. E.; Weltmann, K.-D.; Bekeschus, S.: **Cytochrome C oxidase Inhibition and Cold Plasma-derived Oxidants Synergize in Melanoma Cell Death Induction,** *Sci. Rep.* 8, 2018, 12734

Gauter, S.; Fröhlich, M.; Kersten, H.: **Direct calorimetric measurements in a PBI and deposition (PBI&D) experiment with a HiPIMS plasma source,** *Surf. Coat. Technol.* 352, 2018, p. 663-670

Gerling T., Brandenburg R., Wilke C., Weltmann K.-D.: **Power measurement for an atmospheric pressure plasma jet at different frequencies: distribution in the core plasma and the effluent.** *Eur. Phys. J. Appl. Phys.* (2017) 78: 10801.

Gianella M., Reuter S., Aguila A. L., Ritchie G. A. D., van Helden J.-P. H.: **Detection of HO₂ in an atmospheric pressure plasma jet using optical feedback cavity-enhanced absorption spectroscopy.** *New J.Phys.* 18(2016) 113027.

Golda J., Held J., Redeker B., Konkowski M., Beijer P., Sobota A., Kroesen G., Braithwaite N. S. J., Reuter S., Turner M. M., Gans T., O'Connell D., Schulz-von der Gathen V.: **Concepts and**

characteristics of the ‘COST Reference Microplasma Jet’. In: *Journal of Physics D: Applied Physics*, 49(2016), p.084003 doi:10.1088/0022-3727/49/8/084003.

Grabarczyk, P.; Winkler, P.; Delin, M.; Sappa, P.; Bekeschus, S.; Hildebrandt, P.; Przybylski, G.; Völker, U.; Hammer, E.; Schmidt, C.: **The N-Terminal CCHC Zinc Finger Motif Mediates Homodimerization of Transcription Factor BCL11B**, *Mol. Cell. Biol.* 38(5), 2018, e00368-17

Grosch H., Hoder T., Weltmann K.-D., Brandenburg R.: **Spatio-temporal development of microdischarges in a surface barrier discharge arrangement in air at atmospheric pressure.** *Eur. Phys. J. D* 60 (2010) 547-553.

H

Haertel B., Bäcker C., Lindner K., Müsebeck D., Schulze C., Wurster M., von Woedtke Th., Lindequist U.: **Effects of Physical Plasma on Biotechnological Processes in Mycelia of the Cultivated Lingzhi or Reishi Medicinal Mushroom *Ganoderma lucidum* (Agaricomycetes).** *International Journal of Medicinal Mushrooms*, 18(6) (2016): 521–531.

Haertel B., Eiden K., Deuter A., Wende K., von Woedtke Th., Lindequist U.: **Differential effect of non-thermal atmospheric-pressure plasma on angiogenesis.** *Lett. Appl. NanoBioScience* 3 (2014), p. 159-166.

Haertel B., Hähnel M., Blackert S., Wende K., von Woedtke Th., Lindequist U.: **Surface molecules on HaCaT keratinocytes after interaction with non-thermal atmospheric pressure plasma.** *Cell Biol. Int.* 36 (2012) 1217-1222.

Haertel B., Straßenburg S., Harms M., Wende K., Lindequist U., von Woedtke Th.: **Biologische Effekte von kaltem Atmosphärendruck-Plasma auf humane HaCaT-Keratinocyten.** *Hyg Med* 38 (2013) 198-205 (Schwerpunktheft Plasmamedizin).

Haertel B., Straßenburg S., Oehmigen K., Wende K., von Woedtke Th., Lindequist U.: **Differential influence of components resulting from atmospheric-pressure plasma on integrin expression of human HaCaT keratinocytes.** *BioMed Research International* (2013) p. 761451.

Haertel B., Volkmann F., von Woedtke Th., Lindequist U.: **Differential sensitivity of lymphocyte subpopulations to non-thermal atmospheric-pressure plasma.** *Immunobiology* 217 (2012) 628-633.

Haertel B., von Woedtke Th., Weltmann K.-D., Lindequist U.: **Non-thermal atmospheric-pressure plasma possible application in wound healing.** *Biomol. Ther.* 22 (2014), p. 477-490.

Haertel B., Wende K., von Woedtke Th., Weltmann K.-D., Lindequist U.: **Non-thermal atmospheric-pressure plasma can influence cell adhesion molecules on HaCaT-keratinocytes.** *Exp. Dermatol.* 20 (2011) 282-284.

Hammann A., Hübner N.-O., Bender C., Ekkernkamp A., Hartmann B., Hinz P., Kindel E., Koban I., Koch S., Kohlman T., Lademann J., Matthes R., Müller G., Titze R., Weltmann K.-D., Kramer A.: **Antiseptic Efficacy and Tolerance of Tissue Tolerable Plasma Compared with Two Wound Antiseptics on Artificially Bacterially Contaminated Eyes from Commercially Slaughtered Pigs.** *Skin Pharmacol. Physiol.* 23 (2010) 328-332.

Handorf, O.; Weihe, T.; Bekeschus, S.; Graf, A. C.; Schnabel, U.; Riedel, K.; Ehlbeck, J.: **Nonthermal Plasma Jet Treatment Negatively Affects the Viability and Structure of Candida albicans SC5314 Biofilms,** *Appl. Environ. Microbiol.* 84, 2018, e01163-18

Hansen, L.; Schmidt-Bleker, A.; Bansemer, R.; Kersten, H.; Weltmann, K.-D.; Reuter, S.: **Influence of a liquid surface on the NO_x production of a cold atmospheric pressure plasma jet,** *J. Phys. D: Appl. Phys.* 51, 2018, 474002

Hasse S., Duong Tran T., Hahn O., Kindler S., Metelmann H.-R., von Woedtke Th., Masur K.: **Induction of proliferation of basal epidermal keratinocytes by cold atmospheric pressure plasma.** *Accepted for publishing in: Clinical and Experimental Dermatology.*

Hasse S., Tran T., Hahn O., Kindler S., Metelmann H.-R., von Woedtke Th., Masur K.: **Induction of proliferation of basal epidermal keratinocytes by cold atmospheric pressure plasma.** *In: Clinical and Experimental Dermatology (2016) 41, pp 202-209.*

Hähnel M., Diener A., Kolukisaoglu Ü., Weltmann K.-D., Thurow K.: **The Influence on Cell Growth Properties in Different Microtiterplate Types by Corona-Dielectric Barrier Discharge Plasma at Atmospheric Pressure.** *Plasma Process. Polym.* 8 (2011) 70-76.

Hähnel M., von Woedtke Th., Weltmann K.-D.: **Influence of the air humidity on the reduction of bacillus spores in a defined environment at atmospheric pressure using a dielectric barrier surface discharge.** *Plasma Process. Polym.* 7 (2010) 244-249(Special Issue "Plasma Medicine").

Hänsch M. A. C., Mann M., Weltmann K.-D., von Woedtke Th.: **Analysis of antibacterial efficacy of plasma-treated sodium chloride solutions.** *J. Phys. D: Appl. Phys.* 48 (2015) 454001 (14pp).

Hänsch M.A.C., Winter J., Bussiahn R., Weltmann K.-D., von Woedtke Th.: **A Systematic Characterization of a Novel Surface Dielectric Barrier Discharge for Biomedical Experiments.** *Plasma Med.* 3 (2013), p. 27-44.

Helmke A., Hoffmeister D., Berge F., Emmert S., Laspe P., Mertens N., Viöl W., Weltmann K.-D.: **Physical and Microbiological Characterisation of Staphylococcus epidermidis Inactivation by Dielectric Barrier Discharge Plasma.** *Plasma Processes and Polymers* 8 (2011), 278-286.

Helmke A., Wandke D., Mahmoodzada M., Weltmann K.-D., Viöl W.: **Impact of electrode design, supply voltage and interelectrode distance on safety aspects and characteristics of a medical DBD plasma source.** *Contrib. Plasma Phys.* 53 (2013), p. 623-638.

Hempel F., Steffen H., Busse B., Finke B., Nebe J., Quade A., Rebl H., Bergemann C., Weltmann K.-D., Schröder K.: **On the application of gas discharge plasmas for the immobilization of bioactive molecules for biomedical and bioengineering applications.** *Reza Fazel-Rezai (ed.) Biomedical Engineering – Frontiers and Challenges. InTech, Rijeka 2011, 297-318.*

Hertel, M.; Schwill-Engelhardt, J.; Gerling, T.; Weltmann, K.-D.; Imiolczyk, S.; Hartwig, S.; Preissner, S.: **Antibacterial Efficacy of Plasma Jet, Dielectric Barrier Discharge, Chlorhexidine, and Silver Diamine Fluoride Varnishes in Caries Lesions,** *Plasma Med. 8, 2018, p. 73-82*

Hilker L., von Woedtke Th., Weltmann K.-D., Wollert H.-G.: **Cold atmospheric plasma: a new tool for the treatment of superficial driveline infections.** *European Journal of Cardio-Thoracic Surgery 51 (2017) 186-187.*

Hilker, L.; von Woedtke, T.; Masur, K.; Weltmann, K.-D.; Wollert, H.-G.: **Kaltplasma-Anwendungen bei Wundinfektionen mit Fremdkörperbeteiligung in der Herzchirurgie,** *WundManagement 12, 2018, 260-267*

Hoene A., Patrzyk M., Walschus U., Straňák V., Hippler R., Testrich H., Meichsner J., Finke B., Rebl H., Nebe B., Zietz C., Bader R., Podbielski A., Schlosser M.: **In vivo examination of the local inflammatory response after implantation of Ti6Al4V samples with a combined low-temperature plasma treatment using pulsed magnetron sputtering of copper and plasma-polymerized ethylenediamine.** *J. Mater. Sci.: Mater. Med. 24 (2013) 761-771.*

Hoentsch M., Bussiahn R., Rebl H., Bergemann C., Eggert M., Frank M., von Woedtke Th., Nebe B.: **Persistent effectivity of gas plasma-treated, long time-stored liquid on epithelial cell adhesion capacity and membrane morphology.** *PLoS One 9 (2014), p. e104559.*

Hoentsch M., von Woedtke Th., Weltmann K.-D., Nebe J.: **Time-dependent effects of low-temperature atmospheric pressure argon plasma on epithelial cell attachment, viability and tight junction formation in vitro.** *J. Phys. D: Appl. Phys. 45 (2012) 025206.*

Hüfner A., Steffen H., Holtfreter B., Schlüter R., Duske K., Matthes R., von Woedtke Th., Weltmann K.-D., Kocher T., Jablonowski L.: **Effect of Non-Thermal Atmospheric Pressure Plasma and Sodium Hypochlorite Solution on Enterococcus faecalis Biofilm: An Investigation in Extracted Teeth.** *Plasma Process. Polym. 2017, 14, 1600064.*

I

Iseni S., Bruggeman P. J., Weltmann K.-D., Reuter S.: **Nitrogen metastable ($N_2(A^3\Sigma_u^+)$) in a cold argon atmospheric pressure plasma jet: Shielding and gas composition.** *APPLIED PHYSICS LETTERS 108, 184101 (2016).*

Iséni S., Reuter S., Bleker A.S., Weltmann K.-D.: **Flow and discharge development in an argon atmospheric pressure plasma jet observed by ICCD and PLIF imaging.** *IEEE Trans. Plasma Sci. (Images of Plasma Science), (2014) accepted.*

Iséni S., Reuter S., Weltmann K.-D.: **NO₂ dynamics of an Ar/Air plasma jet investigated by in situ quantum cascade laser spectroscopy at atmospheric pressure.** *J. Phys. D: Appl. Phys.* 47, (2014) 075203.

Iséni S., Schmidt-Bleker A., Winter J., Weltmann K.-D., Reuter S.: **Atmospheric pressure streamer follows the turbulent argon air boundary in a MHz argon plasma jet investigated by OH-tracer PLIF spectroscopy.** *J. Phys. D. Fast Track Communication*, 47, (2014) 152001 marked as IOP select.

Iséni S., Zhang S., v. Gessel A.F.H., Hofmann S., v. Ham B.T.J., Reuter S., Weltmann K.-D., Bruggeman P.J.: **Nitric Oxide density distributions in the effluent of an RF argon APPJ: effect of gas flow rate and substrate.** *New Journal of Physics*, (2014) accepted.

J

Jablonowski H., Bussiahn R., Hammer M. U., Weltmann K.-D., von Woedtke Th., Reuter S.: **Impact of plasma jet VUV-radiation on Reactive Oxygen Species Generation in Bio-Relevant Liquids.** In: *Physics of Plasmas*, 22(2015), p.122008 doi:10.1063/1.4934989.

Jablonowski H., Hänsch M.A., Dünnbier M., Wende K., Hammer M. U., Weltmann K.-D., Reuter S., von Woedtke Th.: **Plasma jet's shielding gas impact on bacterial inactivation.** In: *Biointerphases*, 06/015;10(2):029506.

Jablonowski L., Koban I., Berg M.H., Kindel E., Duske K., Schröder K., Weltmann K.-D., Kocher T.: **Elimination of E. faecalis by a New Non-Thermal Atmospheric Pressure Plasma Handheld Device for Endodontic Treatment.** A Preliminary. *Investigation Plasma Process. Polym.* 10 (2013) 499-505.

Jablonowski L., Koban I., Kocher T.: **Plasmamedizin in der Zahnmedizin.** *Hyg. Med.* 38 (2013) 206-211.

Jablonowski H., von Woedtke Th.: **Research on plasma medicine-relevant plasma-liquid interaction: What happened in the past five years?** In: *Clinical Plasma Medicine*, 3(2015), p. 42-52 doi: 10.1016/j.cpme.2015.11.003

Jablonowski, H.; Schmidt-Bleker, A.; Weltmann, K.-D.; von Woedtke, T.; Wende, K.: **Non-touching plasmaliquid interaction where is aqueous nitric oxide generated?**, *Phys. Chem. Chem. Phys.* 20, 2018, 5387-5398

Jablonowski, H.; Santos Sousa, J.; Weltmann, K.-D.; Wende, K.; Reuter, S.: **Quantification of the ozone and singlet delta oxygen produced in gas and liquid phases by a nonthermal atmospheric plasma with relevance for medical treatment**, *Sci. Rep.* 8, 2018, 12195

K

Kaushik, N. K.; Ghimire, B.; Li, Y.; Adhikari, M.; Veerana, M.; Kaushik, N.; Jha, N.; Adhikari, B.; Lee, S.-J.; Masur, K.; von Woedtke, T.; Weltmann, K.-D.; Choi, E. H.: **Biological and medical applications of plasmaactivated media, water and solutions**, *Biol. Chem.* 400, 2018, 39-62

Khakpour A., Franke S., Gortschakow S., Uhrlandt D., Methling R., Weltmann K.-D.: **An Improved Arc Model Based on the Arc Diameter**. *IEEE TRANSACTIONS ON POWER DELIVERY*, VOL.31 ,NO.3, JUNE 2016.

Khakpour A., Uhrlandt D., Methling R., Franke S., Gortschakow S., Popov S., Batrakov A., Weltmann K.-D.: **Impact of Different Vacuum Interrupter Properties on High-Current Anode Phenomena**. *IEEE TRANSACTIONS ON PLASMA SCIENCE*, VOL. 44, NO. 12, DECEMBER 2016.

Khakpour A., Uhrlandt D., Methling R.-P., Gortschakow S., Franke S., Imani M. T.: **Impact of temperature changing on voltage and power of an electric arc**. *Electric Power Systems Research* 143 (2017) 73-83.

Kindler, S.; Holtfreter, B.; Koppe, T.; Mksoud, M.; Lucas, C.; Seebauer, C.; Völzke, H.; Kocher, T.; Johnson, K.; Langner, S.; Albers, M.; Metelmann, H.-R.; Ittermann, T.: **Third molars and periodontal damage of second molars in the general population**, *J. Clin. Periodontol.*, 45, 2018, p. 1365-1374

Klinger C., Dengler B., Bauer T., Mueller R.: **Erfolgreiche Behandlung einer nekrotisierenden, multiresistenten bakteriellen Pyodermie bei einem Python mittels Kaltplasmatherapie**. *Tierärztliche Praxis Kleintiere* (1/2018) 43-48.

Kluge S., Bekeschus S., Bender C., Benkhail H., Sckell A., Below H., Stope M. B., Kramer A.: **Investigating the Mutagenicity of a Cold Argon-Plasma Jet in a HET-MN Model**. *PLOS ONE* | DOI:10.1371/journal.pone.0160667 September 1, 2016.

Koban I., Duske K., Jablonowski L., Schröder K., Nebe B., Sietmann R., Weltmann K.-D., Hübner N.-O., Kramer A., Kocher T.: **Atmospheric Plasma Enhances Wettability and Osteoblast Spreading on Dentine In Vitro: Proof-of-Principle**. *Plasma Process. Polym.* 8 (2011) 975-982.

Koban I., Holtfreter B., Hübner N.-O., Matthes R., Sietmann R., Kindel E., Weltmann K.-D., Welk A., Kramer A., Kocher T.: **Antimicrobial efficacy of non-thermal plasma in comparison to chlorhexidine against dental biofilms on titanium discs in vitro – proof of principle experiment**. *J Clin Periodontol* 38 (2011) 956–965.

Koban I., Matthes R., Hübner N.-O., Welk A., P. Meisel, Holtfreter B., Sietmann R., Kindel E., Weltmann K.-D., Kramer A., Kocher T.: **Treatment of Candida albicans biofilms with low-temperature plasma induced by dielectric barrier discharge and atmospheric pressure plasma jet**. *New J. Phys.* 12 (2010) 073039.

Kochanowski A., Hoene A., Patrzyk M., Walschus U., Finke B., Luthringer B., Feyerabend F., Willumeit R., Lucke S., Schlosser M.: **Examination of the inflammatory response following implantation of titanium plates coated with phospholipids in rats**. *J. Mater. Sci.:Mater. Med.* 22 (2011) 1015-1026.

Kondeti, S. K.; Phan, C. Q.; Wende, K.; Jablonowski, H.; Gangal, U.; Granick, J. L.; Hunter, R. C.; Bruggeman, P. J.: **Long-lived and short-lived reactive species produced by a cold atmospheric**

pressure plasma jet for the inactivation of Pseudomonas aeruginosa and Staphylococcus aureus, *Free Radic. Biol. Med.*, 124, 2018, p. 275-287

Kramer A., Assadian O., Below H., Bender C., Hammann A., Hartmann B., Hübner N.-O., Koban I., Kocher T., Lademann J., Matthes R., Weltmann K.-D.: **Perspektiven der Plasmamedizin. Einsatzmöglichkeiten von gewebekompatiblen Atmosphärendruckplasmen (Tissue Tolerable Plasma, TTP).** *Vakuum in Forschung und Praxis* 22, Nr. 2 (2010) 33-38.

Kramer A., Bekeschus S., Matthes R., Bender C., Stope M. B., Napp M., Lademann O., Lademann J., Weltmann K.-D., Schauer F.: **Cold Physical Plasmas in the Field of Hygiene – Relevance, Significance and Future Applications.** *Plasma Process. Polym.* 2015, 12, 1410–1422 DOI: 10.1002/ppap.201500170.

Kramer A., Bender C., Assadian O., Ekkernkamp A., Hartmann B., Heidecke C.D., Hinz P., Koban I., Masur K., Matthes R., Metelmann H.-R., Partecke I., Reuter S., Sckell A., Weltmann K.-D., Lademann J.: **Physikalisches kaltes Atmosphärendruckplasma als aussichtsreiche Option zur Behandlung chronischer Wunden.** *Hyg. Med.* 38 (2013) 186-191 (Schwerpunktheft Plasmamedizin).

Kramer A., Lademann J., Bender C., Sckell A., Hartmann B., Münch S., Hinz P., Ekkernkamp A., Matthes R., Koban I., Partecke I., Heidecke C.D., Masur K., Reuter S., Weltmann K.-D., Koch S., Assadian O.: **Suitability of tissue tolerable plasmas (TTP) for the management of chronic wounds.** *Clinical Plasma Medicine* 1 (2013) 11-18.

L

Lackmann, J.-W.; Wende, K.; Verlackt, C.; Golda, J.; Volzke, J.; Kogelheide, F.; Held, J.; Bekeschus, S.; Bogaerts, A.; Schulz-von der Gathen, V.; Stapelmann, K.: **Chemical fingerprints of cold physical plasmas an experimental and computational study using cysteine as tracer compound,** *Sci. Rep.*, 8, 2018, 7736

Lademann J., Ulrich C., Patzelt A., Richter H., Kluschke F., Klebes M., Lademann O., Kramer A., Weltmann K.-D., Lange-Asschenfeldt B.: **Risk assessment of the application of tissue-tolerable plasma on human skin.** *Clinical Plasma Medicine* 1 (2013) 5–10.

Lademann O., Kramer A., Richter H., Patzelt A., Meinke M.C., Czaika V., Weltmann K.-D., Hartmann B., Koch S.: **Skin Disinfection by Plasma Tissue Interaction: Comparison of the Effectivity of Tissue-Tolerable Plasma and a Standard Antiseptic.** *Skin. Pharmacol. Physiol.* 24 (2011) 284-288.

Lademann O., Kramer A., Richter H., Patzelt A., Meinke M.C., Roewert-Huber J., Czaika V., Weltmann K.-D., Hartmann B., Koch S.: **Antisepsis of the follicular reservoir by treatment with tissue-tolerable plasma.** *Laser Phys. Lett.* 8 (2011) 313-317.

Lademann O., Richter H., Kramer A., Patzelt A., Meinke M.C., Graf C., Gao Q., Korotiansky E., Rühl E., Weltmann K.-D., Lademann J., Koch S.: **Stimulation of the penetration of particles into the skin by plasma tissue interaction.** *Laser Phys. Lett.* 8 (2011) 758-764.

Lademann O., Richter H., Meinke M.C., Patzelt A., Kramer A., Hinz P., Weltmann K.-D., Hartmann B., Koch S.: **Drug delivery through the skin barrier enhanced by treatment with tissue-tolerable plasma.** *Exp. Dermatol.* 20 (2011) 488-490.

Lademann J., Richter H., Patzelt A., Meinke M.C., Fluhr J.W., Kramer A., Weltmann K.-D., Lademann O.: **Antisepsis of the Skin by Treatment with Tissue-Tolerable Plasma (TTP): Risk Assessment and Perspectives.** In: Z. Machala, K. Hensel, Y. Akishev (Eds.): *Plasma for bio-decontamination, medicine and food security, NATO Science for Peace and Security Series – A: Chemistry and Biology, Springer 2012, pp. 281-291.*

Lademann J., Richter H., Schanzer S., Patzelt A., Thiede G., Kramer A., Weltmann K.-D., Hartmann B., Lange-Asschenfeld B.: **Comparison of the Antiseptic Efficacy of Tissue-Tolerable Plasma and an Octenidine Hydrochloride-Based Wound Antiseptic on Human Skin.** *Skin. Pharmacol. Physiol.* 25 (2012) 100-106 DOI: 10.1159/000335558.

Lendeckel D., Eymann C., Emicke P., Daeschlein G., Darm K., O'Neil S., Beule A. G., von Woedtke T., Völker U., Weltmann K.-D., Jünger M., Hosemann W., Scharf C.: **Proteomic Changes of Tissue-Tolerable Plasma Treated Airway Epithelial Cells and Their Relation to Wound Healing.** *Hindawi Publishing Corporation BioMed Research International Volume 2015, Article ID 506059, 17 pages.*

Liedtke, K. R.; Diedrich, S.; Pati, O.; Freund, E.; Flieger, R.; Heidecke, C. D.; Partecke, L. I.; Bekeschus, S.: **Cold Physical Plasma Selectively Elicits Apoptosis in Murine Pancreatic Cancer Cells In Vitro and In Ovo,** *Anticancer Res., B.* 38 (2018), p. 5655-5663

Liedtke, K. R.; Freund, R.; Hackbarth, C.; Heidecke, C.-D.; Partecke, L.-I.; Bekeschus, S.: **A myeloid and lymphoid infiltrate in murine pancreatic tumors exposed to plasma-treated medium,** *Clin. Plasma Med.,* 11, 2018, p. 10-17

M

Mann M. S., Tiede R., Gavenis K., Daeschlein G., Bussiahn R., Weltmann K.-D., Emmert S., von Woedtke T., Ahmed R.: **Introduction to DIN-specification 91315 based on the characterization of the plasma jet kinPen®MED.** *Clinical Plasma Medicine* 4 (2016) 35-45.

Mann M. S., Schnabel U., Weihe T., Weltmann K.-D., von Woedtke T.: **A Reference Technique to Compare the Antimicrobial Properties of Atmospheric Pressure Plasma Sources.** *Plasma Medicine,* 5(1): 27–47 (2015).

Masur K., von Behr M., Bekeschus S., Weltmann K.-D., Hackbarth C., Heidecke C.-D., von Bernstorff W., von Woedtke T., Partecke L.I.: **Synergistic Inhibition of Tumor Cell Proliferation by Cold Plasma and Gemcitabine.** *Plasma Process. Polym.* 2015, 12, 1377–1382 DOI: 10.1002/ppap.201500123.

Masur, K.; Schmidt, J.; Stürmer, E.; von Woedtke, T.: **Kalte Plasmen zur Heilung chronischer Wunden,** *WundManagement* 12 (2018), p. 253-259

Matthes R., Bekeschus S., Bender C., Koban I., Hübner N.-O., Kramer A.: **Pilot-study on the influence of carrier gas and plasma application (open resp. delimited) modifications on physical plasma and**

its antimicrobial effect against Pseudomonas aeruginosa and Staphylococcus aureus. *GMS Krankenhaushyg. Interdiszip. 7 (2012) Doc02.*

Matthes R., Bender C., Schlüter R., Koban I., Bussiahn R., Reuter S., Lademann J., Weltmann K.-D., Kramer A.: **Antimicrobial Efficacy of Two Surface Barrier Discharges with Air Plasma against In Vitro Biofilms.** *PLoS One 8 (2013), p. e70462.*

Matthes R., Hübner N.-O., Bender C., Koban I., Horn S., Bekeschus S., Weltmann K.-D., Kocher T., Kramer A., Assadian O.: **Efficacy of Different Carrier Gases for Barrier Discharge Plasma Generation Compared to Chlorhexidine on the Survival of Pseudomonas aeruginosa Embedded in Biofilm in vitro.** *Skin Pharmacol. Physiol. 27 (2014), p. 148-157.*

Matthes R., Koban I., Bender C., Masur K., Kindel E., Weltmann K.-D., Kocher T., Kramer A., Hübner N.-O.: **Antimicrobial Efficacy of an Atmospheric Pressure Plasma Jet Against Biofilms of Pseudomonas aeruginosa and Staphylococcus epidermidis.** *Plasma Process. Polym. 10 (2013) 161–166.*

Metelmann P. H., Quooß A., von Woedtke T., Krey K.-F.: **First insights on plasma orthodontics – Application of cold atmospheric pressure plasma to enhance the bond strength of orthodontic brackets.** *Clinical Plasma Medicine 4 (2016) 46-49.*

Metelmann H.-R., von Woedtke Th., Bussiahn R., Weltmann K.-D., Rieck M., Khalili R., Podmelle F., Waite P.D.: **Experimental Recovery of CO₂-Laser Skin Lesions by Plasma Stimulation.** *Am J. Cosmetic Surg. 29 (2012) 52-56.*

Metelmann H.-R., Vu T.T., Do H.T., Le T.N. B., Hoang T.H.A., Phi T.T.T., Luong T.M.L., Doan V.T., Nguyen T.T.H., Nguyen T.H.M., Le D.Q., Le T.K.X., von Woedtke Th., Bussiahn R., Weltmann K.-D., Khalili R., Podmelle F.: **Scar formation of laser skin lesions after cold atmospheric pressure plasma (CAP) treatment: A clinical long term observation.** *Clinical Plasma Medicine 1 (2013) 30-35.*

Metelmann, H.-R.; Seebauer, C.; Rutkowski, R.; Schuster, M.; Bekeschus, S.; Metelmann, P.: **Treating cancer with cold physical plasma: On the way to evidence-based medicine,** *Contrib. Plasma Phys. 58 (2018), p. 415-419*

Miron C., Hulubei C., Sava I., Quade A., Steuer A., Weltmann K.-D., Kolb J. F.: **Polyimide Film Surface Modification by Nanosecond High Voltage Pulse Driven Electrical Discharges in Water.** *Plasma Process. Polym. 2015, 12, 734–745*

Miron C., Zhuang J., Member, IEEE, Balcerak M., Holub M., Kruth A., Quade A., Sava I., Weltmann K.-D., Kolb J. F., Senior Member, IEEE: **Cobalt Containing Polyimide Films Treated by Nanosecond Pulsed Electrical Discharges in Water.** *IEEE TRANSACTIONS ON PLASMA SCIENCE, VOL. 44, NO. 11, NOVEMBER 2016.*

Miron C., Zhuang J., Sava I., Kruth A., Weltmann K.-D., Kolb J.F.: **Dielectric Spectroscopy of Polyimide Films Treated by Nanosecond High Voltage Pulsed Driven Electrical Discharges in Water.** *Plasma Process. Polym. 2016, 13, 253–257 DOI: 10.1002/ppap.201500037.*

N

Nebe B., Finke B., Hippler R., Meichsner J., Podbielski A., Schlosser M., Bader R.: **Physikalische Plasmaprozesse zur Oberflächen-Funktionalisierung von Implantaten für die Orthopädische Chirurgie.** *Hyg. Med.* 38 (2013) 192-197 (Schwerpunktheft Plasmamedizin).

O

Oehmigen K., Hoder T., Wilke C., Brandenburg R., Hähnel M., Weltmann K.-D., von Woedtke Th.: **Volume Effects of Atmospheric-Pressure Plasma in Liquids.** *IEEE Trans. Plasma Sci.* 39(2011) 2646-2647.

Oehmigen K., Winter J., Hähnel M., Wilke C., Brandenburg R., Weltmann K.-D., von Woedtke Th.: **Estimation of Possible Mechanisms of Escherichia coli Inactivation by Plasma Treated Sodium Chloride Solution.** *Plasma Process. Polym.* 8 (2011) 904-913.

Oehmigen K., Hähnel M., Brandenburg R., Wilke C., Weltmann K.-D., von Woedtke Th.: **The Role of Acidification for Antimicrobial Activity of Atmospheric Pressure Plasma in Liquids.** *Plasma Process. Polym.* 7 (2010) 250-257; Special Issue "Plasma Medicine".

P

Partecke L., Evert K., Haugk J., Doering F., Normann L., Diedrich S., Weiss F.-U., Evert M., Hübner N.O., Heidecke C.D., Kramer A., Bussiahn R., Weltmann K.-D., Pati O., Bender C., von Bernstorff W.: **Tissue Tolerable Plasma (TTP) induces Apoptosis in the human pancreatic cancer cells in vitro and in vivo.** *BMC Cancer* 12 (2012) 473.

Pasqual-Melo, G.; Gandhirajan, R.; Stoffels, I.; Bekeschus, S.: **Targeting malignant melanoma with physical plasmas,** *Clin. Plasma Med.*, 10 (2018), p. 1-8

Pipa A.V., Reuter S., Foest R., Weltmann K.-D.: **Controlling the NO production of an atmospheric pressure plasma jet.** *J. Phys. D: Appl. Phys.* 45, (2012) 085201.

Polak M., Winter J., Schnabel U., Ehlbeck J., Weltmann K.-D.: **Innovative Plasma Generation in Flexible Biopsy Channels for Inner-Tube Decontamination and Medical Applications.** *Plasma Process. Polym.* 9 (2012) 67-76.

Q

Quade A., Ihrke R., Kellner U., Bergemann C., Schröder K.: **Stimulierung des Zellwachstums in dreidimensionalen Stützgerüsten durch plasmagestützte Oberflächenveredelungen.** In: *Knöchernen Geweberegeneration: Zellphysiologie im Dreidimensionalen.* Hans-Georg Neumann, Ernst-Dieter Klinkenberg (Hrsg.), Shaker Verlag GmbH, Aachen 2014, ISBN 978-3-8440-3049-5, pp. 61-71.

R

Rebl H., Finke B., Lange R., Weltmann K.-D., Nebe J.: **Impact of plasma chemistry versus titanium surface topography on osteoblast orientation.** *Acta Biomater* 8 (2012) 3840-3851.

Reetz J., Hildebrandt S., Schmidt A., Meier C., Herchenröder O., Gläser A., Witt M., Pützer B. M., Wree A.: **Novel subventricular zone early progenitor cell – specific adenovirus for in vivo therapy of central nervous system disorders reinforces brain stem cell heterogeneity.** *Brain Struct Funct* (2016) 221: 2049-2059 DOI 10.1007/s00429-015-1025-8.

Reitberger H., Martines E., Mohr A., Chow C., Fuchsluger T.: **Kaltplasma zur Behandlung therapieresistenter Hornhautulzera.** *Klinische Monatsblätter für Augenheilkunde* 12/2018.

Reuter S., Schmidt-Bleker A., Tresp H., Winter J., Iseni S., Hammer M., Dünnbier M., Weltmann K.-D.: **Interaction of Atmospheric Pressure Plasma Jets with Liquids.** *Proc. Plasma Physics and Technology*, vol. 1, no. 2, p. 55-57.

Reuter S., Winter J., Iseni S., Peters S., Schmidt-Bleker A., Dünnbier M., Schäfer J., Foest R., Weltmann K.-D.: **Detection of ozone in a MHz argon plasma bullet jet.** *Plasma Sources Sci. Technol. Special Issue "Plasma Bullets"*, 21, (2012) 034015.

Reuter S., Winter J., Iseni S., Schmidt-Bleker A., Dünnbier M., Masur K., Wende K., Weltmann K.-D.: **The Influence of Feed Gas Humidity Versus Ambient Humidity on Atmospheric Pressure Plasma Jet-Effluent Chemistry and Skin Cell Viability.** *In: IEEE Transactions on Plasma Science*, 43(2015), p.3185-3192.

Reuter S., Winter J., Schmidt-Bleker A., Schroeder D., Lange H., Knake N., Schulz-v.d.Gathen V., Weltmann K.-D.: **Atomic Oxygen in a Cold Argon Plasma Jet: TALIF Spectroscopy in Ambient Air with Modelling and Measurements of Ambient Species Diffusion.** *Plasma Sources Science and Technology Special Issue "Frontiers on Low Temperature Plasma Diagnostics"*, 21, (2012) 024005.

Reuter, S.; von Woedtke, T.; Weltmann, K.-D.: **The kINPen a review on physics and chemistry of the atmospheric pressure plasma jet and its applications,** *J. Phys. D: Appl. Phys.*, 51 (2018), 233001

S

Sagwal, S. K.; Pasqual-Melo, G.; Bodnar, Y.; Gandhirajan, R. K.; Bekeschus, S.: **Combination of chemotherapy and physical plasma elicits melanoma cell death via upregulation of SLC22A16,** *Cell Death Dis.*, 9 (2018), 1179

Schäfer J., Sigener F., Foest R., Loffhagen D., Weltmann K.-D.: **On plasma parameters of a self-organized plasma jet at atmospheric pressure.** *Eur. Phys. J. D* 60 (2010) 531-538.

Schmidt A., Bekeschus S., Hasse S., Masur K., Wende K., von Woedtke Th.: **Molekular- und zellbiologische Charakterisierung humaner Hautzellen nach Behandlung mit kaltem physikalischem Plasma.** *Submitted – Galvanotechnik.*

Schmidt A., Bekeschus S., von Woedtke Th., Hasse S.: **Human melanoma cell migration and adhesion is decreased by cold plasma treatment.** *Submitted - Clinical Plasma Medicine.*

Schmidt A., Bekeschus S., Wende K., Vollmar B., von Woedtke Th.: **A cold plasma jet accelerates wound healing in murine model of full-thickness skin wounds.** *Experimental Dermatology 2017; 26: 156-162 DOI: 10.1111/exd. 13156.*

Schmidt A., von Woedtke Th., Bekeschus S.: **Periodic Exposure of Keratinocytes to Cold Physical Plasma: An In Vitro Model for Redox-Related Diseases of the Skin.** *In: Oxid Med Cell Longev (2016).*

Schmidt A., von Woedtke Th., Stenzel J., Lindner T., Polei S., Vollmar B., Bekeschus S.: **One Year Follow-Up Risk Assessment in SKH-1 Mice and Wounds Treated with an Argon Plasma Jet.** *Int. J. Mol. Sci. 2017, 18, 868; doi: 10.3390/ijms18040868.*

Schmidt A., Wende K., Bekeschus S., Bundscherer L., Barton A., Ottmüller K., Weltmann K.-D., Masur K.: **Non-thermal plasma treatment is associated with changes in transcriptome of human epithelial skin cells.** *Free Rad. Res. 47 (2013), p. 577-592.*

Schmidt, A.; Bekeschus, S.: Redox for Repair: **Cold Physical Plasmas and Nrf2 Signaling Promoting Wound Healing,** *Antioxidants, 7 (2018), 146*

Schmidt-Bleker A., Norberg S. A., Winter J., Johnsen E., Reuter S., Weltmann K.-D., Kushner M. J.: **Propagation mechanisms of guided streamers in plasma jets: the influence of electronegativity of the surrounding gas.** *In: Plasma Sources Science and Technology, 24(2015), p.035022.*

Schmidt-Bleker A., Reuter S., Weltmann K.-D.: **Quantitative schlieren diagnostics for the determination of ambient species density, gas temperature and calorimetric power of cold atmospheric plasma jets.** *In: Journal of Physics D: Applied Physics, 48(2015), p.175202.*

Schmidt-Bleker A., Reuter S., Weltmann K.-D.: **Non-dispersive path mapping approximation for the analysis of ambient species diffusion in laminar jets.** *Physics of Fluids, 26 (2014) 083603.*

Schmidt A., Rödder K., Hasse S., Masur K., Toups L., Lillig C.H., von Woedtke Th., Wende K., Bekeschus S.: **Redox-regulation of activator protein 1 family members in blood cancer cell lines exposed to cold physical plasma-treated medium.** *Plasma Process Polym 2016; 13: 1179–1188 DOI 10.1002/ppap.201600090.*

Schmidt-Bleker A., Winter J., Iséni S., Dünnbier M., Weltmann K. D., Reuter S.: **Reactive species output of a plasma jet with a shielding gas device? Combination of FTIR absorption spectroscopy and gas phase modelling.** *J. Phys. D: Appl. Phys. 47, (2014) 145201.*

Schmidt-Bleker A., Winter J., Bösel S., Reuter S, Weltmann K.-D.: **On the plasma chemistry of a cold atmospheric argon plasma jet with shielding gas device.** *In: Plasma Sources Science and Technology, 25(2016), p.015005.*

Schnabelrauch M., Wyrwa R., Rebl H., Bergemann C., Finke B., Schlosser M., Walschus U., Lucke S., Weltmann K.-D., Nebe J.B.: **Plasma-activated electrospun polylactide fiber meshes as matrices for tissue engineering.** *Mater Sci Forum Vols. 783-786 (2014) 1337-1342. doi: 10.4028/www.scientific.net/MSF.783-786.*

Schnabelrauch M., Wyrwa R., Rebl H., Bergemann C., Finke B., Schlosser M., Walschus U., Lucke S., Weltmann K.-D., Nebe J.B.: **Surface-coated polylactide fiber meshes as tissue engineering matrices with enhanced cell integration properties.** *International Journal of Polymer Science 2014 (2014) 439784, 12 pages. <http://dx.doi.org/10.1155/2014/439784>.*

Schneider S., Dünnbier M., Hübner S., Reuter S., Benedikt J.: **Atomic nitrogen: a parameter study of a micro-scale atmospheric pressure plasma jet by means of molecular beam mass spectrometry.** *Journal of Physics D: Applied Physics, 47 (2014) 505203.*

Schröder K., Finke B., Jesswein H., Lüthen F., Diener A., Ihrke R., Ohl A., Weltmann K.-D., Rychly J., Nebe J.: **Similarities of plasma amino functionalized PEEK and titanium surfaces concerning enhanced osteoblast cell adhesion.** *A. Carré, K.L. Mittal (eds.), Surface and Interfacial Aspects of Cell Adhesion, Brill Academic Pub. Leiden 2010, 335-353; ISBN 9004190783, 9789004190788.*

Schröder K., Finke B., Polak M., Lüthen F., Nebe J., Rychly J., Bader R., Lukowski G., Walschus U., Schlosser M., Ohl A., Weltmann K.-D.: **Gas-Discharge Plasma-Assisted Functionalization of Titanium Implant Surfaces.** *Mat. Sci. Forum, 638-642 (2010) 700-705.b*

Schuster M., Seebauer C., Rutkowski R., Hauschild A., Podmelle F., Metelmann C., Metelmann B., von Woedtke Th., Hasse S., Weltmann K.-D., Metelmann H.-R.: **Visible tumor surface response to physical plasma and apoptotic cell kill in head and neck cancer.** *Journal of Cranio-Maxillo-Facial Surgery 44 (2016) 1445-1452.*

Schuster, M.; Rutkowski, R.; Hauschild, A.; Shojaei, R. K.; von Woedtke, T.; Rana, A.; Bauer, G.; Metelmann, P.; Seebauer, C.: **Side effects in cold plasma treatment of advanced oral cancer****Clinical data and biological interpretation,** *Clin. Plasma Med., 10 (2018), p. 9-15*

Seebauer, C.; Lucas, C.; Kindler, S.; Metelmann, H.-R.: **Wundmanagement Biologie und Störung der Wundheilung,** *MKG-Chirurg, 11 (2018), p. 277-287*

Stamenkovic, S. N.; Markovic, V. L.; Jovanovic, A. P; Stankov, M. N.: **Generalization of electron avalanche statistics based on negative binomial distribution multielectron initiation and Gaussian approximation,** *JInst, 13 (2018), P12002*

Steuer A., Schmidt A., Labohá P., Babica P., Kolb J. F.: **Transient suppression of gap junctional intercellular communication after exposure to 100-nanosecond pulsed electric fields.**

Bioelectrochemistry 112 (2016) 33-46.

Steuer, A.; Wolff, C. M.; von Woedtke, T.; Weltmann, K.-D.; Kolb, J. F.: **Cell stimulation versus cell death induced by sequential treatments with pulsed electric fields and cold atmospheric pressure plasma,** *PLoS One*, 13 (2018), e0204916

Strassenburg S., Greim U., Bussiahn R., Haertel B., Wende K., von Woedtke Th., Lindequist U.: **Comparison of Biological Effects on Human Keratinocytes Using Different Plasma Treatment Regimes.** *Plasma Med.* 3 (2013), p. 57-69.

Surucu S., Masur K., Sasmazel H. T., von Woedtke Th., Weltmann K. D.: **Atmospheric plasma surface modifications of electrospun PCL/chitosan/PCL hybrid scaffolds by nozzle type plasma jets for usage of cell cultivation.** *Applied Surface Science* 385 (2016) 400-409.

T

Testrich H., Rebl H., Finke B., Hempel F., Nebe B., Meichsner J.: **Long time stability of plasma polymerized ethylenediamine (PPEDA) thin films for cell-adhesive implant coatings.** *Mater. Sci. Eng., C* (2013) 3875-3880, doi.org/10.1016/j.msec.2013.05.024.

Tiede R., Mann M., Viöl W., Daeschlein G., Welz C., Wolff H.A., von Woedtke Th., Lademann J., Emmert S.: **Plasmamedizin in der Dermatologie.** *HAUT* 6 (2014), 228 – 233.

Tiede R., Hirschberg J., Daeschlein G., von Woedtke Th., Vioel W., Emmert S.: **Plasma Applications: A Dermatological View.** *Contributions to Plasma Physics* 54 (2014), p. 118-130.

Tresp H., Hammer M.U., Weltmann K.-D., Reuter S.: **Effects of Atmosphere Composition and Liquid Type on Plasma-Generated Reactive Species in Biologically Relevant Solutions.** *Plasma Med.* 3 (2013), p. 45-55.

Tresp H., Hammer M.U., Winter J., Weltmann K.-D., Reuter S.: **Quantitative detection of plasma-generated radicals in liquids by electron paramagnetic resonance spectroscopy.** *Journal of Physics D: Applied Physics*, 46 (2013) 435401.

Trizio I., Sardella E., Francioso E., Dilecce G., Rizzi V., Cosma P., Schmidt M., Hänsch M., von Woedtke Th., Favia P., Gristina R.: **Investigation of air-DBD effects on biological liquids for in vitro studies on eukaryotic cells.** *Clinical Plasma Medicine* 3 (2015) 62-71.

Trizio I., Sardella E., Rizzi V., Dilecce G., Cosma P., Schmidt M., von Woedtke Th., Gristina R., Favia P.: **Characterization of Reactive Oxygen/ Nitrogen Species Produced in PBS and DMEM by Air DBD Plasma Treatments.** *Plasma Medicine*, 6(1): 13–19 (2016).

U

V

Valverde G.B., Coelho P.C., Janal M.N., Lorenzoni F.C., Carvalho R.M., Thompson V.P., Weltmann K.-D., Silva N.R.F.A.: **Surface characterization and bonding of Y-TZP following non-thermal plasma treatment.** *J. Dent.* 41 (2013) 51-59.

van Gils C.A.J., Hofmann S., Boekema B.K.H.L., Brandenburg R., Bruggeman P.J.: **Mechanisms of bacterial inactivation in the liquid phase induced by a remote RF cold atmospheric pressure plasma jet.** *J. Phys. D: Appl. Phys.* 46 (2013) 175203.

van Gaens W., Iseni S., Schmidt-Bleker A., Weltmann K.-D., Reuter S., Bogaerts A.: **Numerical analysis of the effect of nitrogen and oxygen admixtures on the chemistry of an argon plasma jet operating at atmospheric pressure.** *NewJ.Phys.*17(2015)033003 doi:10.1088/1367-2630/17/3/033003.

Vogelsang A., Ohl A., Steffen H., Foest R., Schröder K., Weltmann K.-D.: **Locally Resolved Analysis of Polymer Surface Functionalization by an Atmospheric Pressure Argon Microplasma Jet with Air Entrainment.** *Plasma Process. Polym.* 7 (2010) 16-24.

von Woedtke Th., Haertel B., Weltmann K.-D., Lindequist U.: **Plasma pharmacy - physical plasma in pharmaceutical applications.** *Pharmazie* 68 (2013), p. 492-498.

von Woedtke Th., Metelmann H.-R.: **Editorial.** *Clinical Plasma Medicine* 4 (2016) A1.

von Woedtke Th., Metelmann H.-R., Weltmann K.-D.: **Clinical Plasma Medicine: State and Perspectives of in Vivo Application of Cold Atmospheric Plasma.** *Contrib. Plasma Phys.* 54 (2014), p. 104-117.

von Woedtke Th., Oehmigen K., Brandenburg R., Hoder T., Wilke C., Hähnel M., Weltmann K.-D.: **Plasma-liquid-interactions: chemistry and antimicrobial effects.** *Z. Machala, K. Hensel, Y. Akishev(Eds.): Plasma for bio-decontamination, medicine and food security, NATO Science for Peace and Security Series – A: Chemistry and Biology, Springer 2012, pp. 67-78.*

von Woedtke Th., Reuter S., Masur K., Weltmann K.-D.: **Plasmas for medicine.** *Phys. Rep.* 530 (2013), p. 291-320.

von Woedtke Th., Metelmann H.-R.: **Focus issue: "Plasma-liquid interactions: Key role in plasma medical research and new fields of application".** *Clinical Plasma Medicine* 3 (2015) 41.

von Woedtke Th., Metelmann H.-R., Weltmann K.-D.: **Editorial. Clinical Plasma Medicine First Issue 2013.** *Clinical Plasma Medicine* 1 (2013) 1-2.

von Woedtke Th., Weltmann K.-D.: **Grundlagen der Plasmamedizin.** *MKG-Chirurg* 2016-9:246–254 DOI10.1007/s12285-016-0075-0.

von Woedtke Th., Weltmann K.-D.: **Plasmamedizin - Medizinische Anwendung von physikalischem Plasma.** *Hyg. Med.* 38 (2013) 180-185 (Schwerpunktheft Plasmamedizin).

von Woedtke Th., Oehmigen K., Brandenburg R., Hoder T., Wilke C., Hähnel M., Weltmann K.-D.: **Plasma-liquid-interactions: chemistry and antimicrobial effects.** *Z. Machala, K. Hensel, Y. Akishev(Eds.): Plasma for bio-decontamination, medicine and food security, NATO Science for Peace and Security Series – A: Chemistry and Biology, Springer 2012, pp. 67-78.*

von Woedtke, T.; Weltmann, K.-D.; Metelmann, H.-R.; Bekeschus, S.; Emmert, S.; Lademann, J.; Viöl, W.: **Letters,** *JInst,* 13 (2018), P12002

W

Walschus U., Hoene A., Kochanowski A.H., Neukirch B., Patrzyk M., Wilhelm L., Schröder K., Schlosser M.: **Quantitative immunohistochemical examination of the local cellular reactions following implantation of biomaterials.** *J. Microscopy* 242 (2011) 94-99.

Walschus U., Hoene A., Patrzyk M., Finke B., Polak M., Lucke S., Nebe B., Schröder K., Podbielski A., Wilhelm L., Schlosser M.: **Serum profile of pro- and anti-inflammatory cytokines following implantation of low temperature plasma-modified titanium plates.** *Journal of Materials Science: Materials in Medicine* 2012, 23(5): 1299-1307.

Walschus U., Schröder K., Finke B., Nebe J., Meichsner J., Hippler R., Bader R., Podbielski A., Schlosser M.: **Application of low-temperature plasma processes for biomaterials.** *R. Pignatello (ed.). Biomaterials Applications for Nanomedicine. InTech, Rijeka 2011, 127-142.*

Weltmann K.-D., Fricke K., Stieber M., Brandenburg R., von Woedtke Th., Schnabel U.: **New non-thermal atmospheric pressure plasma sources for decontamination of human extremities.** *IEEE Trans. Plasma Sci.* 40 (2012) 2963-2969.

Weltmann K.-D., Kindel E., von Woedtke Th., Hähnel M., Stieber M., Brandenburg R.: **Atmospheric-pressure plasma sources: Prospective tools for plasma medicine.** *Pure Appl. Chem.* 82 (2010) 1223-1237.

Weltmann K.-D., Metelmann H.-R., von Woedtke Th.: **LOW TEMPERATURE PLASMA APPLICATIONS IN MEDICINE.** *EPN* 47/5&6 39-42 DOI: <http://dx.doi.org/10.1051/e pn/2016507>.

Weltmann K.-D., Polak M., Masur K., von Woedtke Th., Winter J., Reuter S.: **Plasma Processes and Plasma Sources in Medicine.** *Contrib. Plasma Phys.* 52 (2012) 644-654.

Weltmann K.-D., von Woedtke Th.: **Basic requirements for plasma sources in medicine.** *Eur. Phys. J. Appl. Phys.* 55 (2011) 13807.

Weltmann K.-D., von Woedtke Th.: **Campus PlasmaMed – from basic research to clinical proof.** *IEEE Trans. Plasma Sci.* 39 (2011) 1015-1025.

Weltmann K.-D., von Woedtke Th.: **Plasma medicine—current state of research and medical application.** *Plasma Phys. Control. Fusion* 59 (2017) 014031 (11pp) doi:10.1088/0741-3335/59/1/014031.

Weltmann K.-D., von Woedtke Th.: **Plasmamedizin - Medizinische Anwendung von physikalischem Plasma.** *Hyg. Med.* 38 (2013) 180-185 (Schwerpunktheft Plasmamedizin)

Weltmann K.-D., Winter J., Polak M., Ehlbeck J., von Woedtke Th.: **Atmospheric pressure plasmas for decontamination of complex medical devices.** Z. Machala, K. Hensel, Y. Akishev(Eds.): *Plasma for bio-decontamination, medicine and food security, NATO Science for Peace and Security Series – A: Chemistry and Biology, Springer 2012, pp. 3-15.*

Wende K., Bekeschus S., Schmidt A., Jatsch L., Hasse S., Masur K., von Woedtke Th.: **Risk assessment of a cold argon plasma jet and its mutagenicity.** *Mutation Research, Mutation Research* 798 (2016) 48–54.

Wende K., Landsberg K., Lindequist U., Weltmann K.-D., von Woedtke Th.: **Distinctive Activity of a Nonthermal Atmospheric-Pressure Plasma Jet on Eukaryotic and Prokaryotic Cells in a Cocultivation Approach of Keratinocytes and Microorganisms.** *IEEE Trans. Plasma Sci.* 38 (2010) 2479 – 2485.

Wende K., Reuter S., von Woedtke Th., Weltmann K.-D., Masur K.: **Redox-Based Assay for Assessment of Biological Impact of Plasma Treatment.** *Plasma Process. Polym.* 11 (2014), p. 655-663.

Wende K., Straßenbourg S., Haertel B., Harms M., Holtz S., Barton A., Masur K., von Woedtke Th., Lindequist U.: **Atmospheric pressure plasma jet treatment evokes transient oxidative stress in HaCat keratinocytes and influences cell physiology.** *Cell Biol. Int.* 38 (2014), p. 412-425.

Wende K., Williams P., Dalluge J., van Gaens W., Aboubakr H., Bishop J., von Woedtke Th., Goyal S. M., Bogaerts A., Masur K., Bruggeman P. J.: **Identification of the biologically active liquid chemistry induced by a nonthermal atmospheric pressure plasma jet.** *Biointerphases* 2015; submitted.

Winter J., Brandenburg R., Weltmann K.-D.: **Atmospheric pressure plasma jets: an overview of devices and new directions.** *Plasma Sources Sci. Technol.* (2015) 24 064001.

Winter J., Hänel M., Reuter S.: **Novel focal point multipass cell for absorption spectroscopy on small sized atmospheric plasmas pressure.** In: *Review of Scientific Instruments, submitted (2016).*

Winter J., Tresp H., Hammer M.U., Iseni S., Kupsch S., Schmidt-Bleker A., Wende K., Dünnbier M., Masur K., Weltmann K.-D., Reuter S.: **Tracking plasma generated H₂O₂ from gas into liquid phase and revealing its dominant impact on human skin cells.** *J. Phys. D: Appl. Phys.* 47 (2014), p. 285401.

Winter J., Wende K., Masur K., Iseni S., Dünnbier M., Hammer M.U., Tresp H., Weltmann K.-D., Reuter S.: **Feed gas humidity: a vital parameter affecting a cold atmospheric-pressure plasma jet and plasma-treated human skin cells.** *J. Phys. D: Appl. Phys.* 46 (2013), p. 295401.

Winter, J.; Nishime, Th.; Glitsch, S.; Lühder, H.; Weltmann, K.-D.: **On the development of a deployable cold plasma endoscope**, *Contrib. Plasma Phys.*, 58 (2018), 404-414

Winter, J.; Nishime, T. M. C.; Bansemer, R.; Balazinski, M.; Wende, K.; Weltmann, K.-D.: **Enhanced atmospheric pressure plasma jet setup for endoscopic applications**, *J. Phys. D: Appl. Phys.*, 52 (2018), 24005

Wyrwa R., Finke B., Rebl H., Mischner N., Quaas M., J. Schaefer, Bergemann C., Nebe B., Schröder K., Weltmann K.-D., Schnabelrauch M.: **Design of plasma surface-activated, electrospun polylactide non-wovens with improved cell acceptance**. *Adv. Eng. Materials – Adv. Biomaterials* 13 (2011) B165-B171.

X

Xaubet, M.; Baudler, J.-S.; Gerling, T.; Giuliani, L.; Minotti, F.; Grondona, D.; von Woedtke, T.; Weltmann, K.-D.: **Design optimization of an air atmospheric pressure plasma-jet device intended for medical use**, *Plasma Process. Polym.*, 15 (2018), 1700211

Y

Yusupov, M.; Lackmann, J.-W.; Razzokov, J.; Kumar, S.; Stapelmann, K.; Bogaerts, A.: **Impact of plasma oxidation on structural features of human epidermal growth factor**, *Plasma Process. Polym.*, 15 (2018), 1800022

Z

Zhang Q., Zhuang J., von Woedtke Th., Kolb J.F., Zhang J., Fang J., Weltmann K.-D.: **Synergistic Antibacterial Effects of Treatments with Low Temperature Plasma Jet and Pulsed Electric Fields**. *Appl. Phys. Lett.* 105 (2014) 104103.

Zietz C., Fritsche A., Finke B., Stranak V., Haenle M., Hippler R., Mittelmeier W., Bader R.: **Analysis of the Release Characteristics of Cu-Treated antimicrobial Implant Surface Using Atomic Absorption Spectrometry**. *Bioinorganic Chemistry and Applications, Volume 2012* (2012) Article ID 850390, 5 pages.

Zocher K., Banaschik R., Schulze C., Schulz T., Kredl J., Miron C., Schmidt M., Mundt S., Frey W., Kolba J. F.: **Comparison of Extraction of Valuable Compounds from Microalgae by Atmospheric Pressure Plasmas and Pulsed Electric Fields**. *Plasma Medicine*, 6(3–4): 273–302 (2016).
pages.