

PLASMA MEDICINE

VOLUME 5 CONTENTS

Page Range of Issues
Issue 1: 1-85; Issues 2-4: 87-320

NUMBER 1

Bactericidal Efficacy of Dielectric Barrier Discharge Plasma on Methicillin-Resistant <i>Staphylococcus aureus</i> and <i>Escherichia coli</i> in Planktonic Phase and Colonies <i>In vitro</i> <i>N. Sanaei & H. Ayan</i>	1
The Effect of Cold Atmospheric Plasma Treatment on Cancer Stem Cells <i>B. Trink, M. Keidar, J. Canady, Y. Shamai, & M. Tzukerman</i>	17
A Reference Technique to Compare the Antimicrobial Properties of Atmospheric Pressure Plasma Sources <i>M.S. Mann, U. Schnabe, T. Weihe, K.-D. Weltmann, & T. von Woedtke</i>	27
Inactivation of Hepatitis C Virus Cells Using Gliding Arc Discharge <i>G.M. El-Aragi</i>	49
Rapid Sterilization of Cell Phones Using a Novel Portable Non-Thermal Plasma Device <i>K.A. Morrison, O. Asanbe, X. Dong, A.L. Weinstein, Y. Toyoda, D. Guevara, E. Kirkels, W. Landford, C. Golkowski, M. Golkowski, & J.A. Spector</i>	57
Acidification and Nitrite/Nitrate Accumulation by Nonthermal Dielectric Barrier Discharge (DBD) Affect Human Dermal Fibroblasts <i>M.A. Hoffmanns, E. Demir, S. Baldus, J. Balzer, K. Heuer, P.C. Fuchs, P. Awakowicz, C.V. Suschek, & Christian Opländer</i>	71

NUMBERS 2-4

Preface: Special Issue on Plasma Systems for Biological/Medical Applications <i>M. Hori and G. Fridman</i>	
Nonthermal Plasma Reduces Water Consumption while Accelerating <i>Arabidopsis thaliana</i> Growth and Fecundity <i>B. Peethambaran, J. Han, K. Kermalli, J. Jiaxing, G. Fridman, R. Balsamo, A. Fridman, & V. Miller</i>	87

Study on Thermal Characteristics of Ionized Gas Coagulation Equipment	99
<i>J. Kim, H. Sakakita, H. Yamada, S. Ikehara, H. Nakanishi, T. Niwa, N. Shimizu, M. Ichinose, & Y. Ikehara</i>	
In Vitro and In Vivo Analysis of Hydrogen Peroxide-Enhanced Plasma-Induced Effluent for Infection and Contamination Mitigation at Research and Medical Facilities	109
<i>M. Golkowski, J. Leszczynski, S.R. Plimpton, B. McCollister, & C. Golkowski</i>	
Slow Molecular Transport of Plasma-Generated Reactive Oxygen and Nitrogen Species and O₂ through Agarose as a Surrogate for Tissue	125
<i>J.-S. Oh, E.J. Szili, S. Ito, S-H. Hong, N. Gaur, H. Furuuta, R.D. Short, & A. Hatta</i>	
Influence of Plasma Treatment in Open Air on Mycotoxin Content and Grain Nutriments	145
<i>P. Kříž, B. Petr, H. Zbyněk, K. Jaromír, O. Pavel, Š. Petr, & D. Miroslav</i>	
Large-Volume Plasma Device with Internally Mounted Face-Type Planar Microwave Launchers for Low-Temperature Sterilization	159
<i>M.K. Singh & M. Nagatsu</i>	
Effect of Ozonated Water Supplied Intermittently to Underground Roots on the Growth of Komatsuna (<i>Brassica rapa</i> var. <i>perviridis</i>)	177
<i>H. Saito & S. Iizuka</i>	
Study of the Power Distribution of Each Impedance in the Electrical Circuit of Ionized Gas Coagulation Equipment	189
<i>H. Sakakita, S. Kiyama, J. Kim, H. Yamada, I. Masukane, T. Niwa, N. Shimizu, Y. Seto, M. Ichinose, & Y. Ikehara</i>	
Biological Effects and Enhancement of Percutaneous Absorption on Skin by Atmospheric Microplasma Irradiation	205
<i>K. Shimizu</i>	
Optical Emission Spectroscopy and Contact Angle Study of Plasma Cleaning of Titanium Alloy Surfaces: Argon Plasma	223
<i>J. Katz, S. Gershman, & A. Belkind</i>	
Using Helium-Generated Cold Plasma to Control Infection and Healing	237
<i>P. Brun, V. Russo, P. Brun, E. Tarricone, S. Corrao, V. Deligianni, A. Leonardi, R. Cavazzana, M. Zuin, & E. Martines</i>	
Effect of Flowing Mist Relative Humidity on the Electric Characteristics of Helium Dielectric Barrier Discharge	249
<i>M. El Shaer, M. Mobasher, & A. Zaki</i>	
Improving the Efficiency of Organic Fertilizer and Nitrogen Use via Air Plasma and Distributed Renewable Energy	257
<i>R. Ingels & D.B. Graves</i>	
Generation of Atmospheric Pressure Dry- and Mist-Plasma Jets and Their Effects on HeLa Cells	271
<i>T. Sonoda, K. Umeda, D. Wang, T. Namihira, & H. Akiyama</i>	

Mass Spectrometry Analyses of Ions Generated by Atmospheric-Pressure Plasma Jets in Ambient Air	283
<i>T. Ito, K. Gotoh, K. Sekimoto, & S. Hamaguchi</i>	
Generation Process and Sterilization Effect of OH Radical in a Steam Plasma Flow at Atmospheric Pressure for a Plasma Autoclave	299
<i>T. Sato & T. Furui</i>	
Index to Volume 5	315

PLASMA MEDICINE

AUTHOR INDEX FOR VOLUME 5

**Page Range of Issues
Issue 1: 1-85; Issues 2-4: 87-320**

Akiyama, H., 271	Hong, S-H., 125	Peethambaran, B., 87
Asanbe, O., 57	Ichinose, M., 99, 189	Petr, B., 145
Awakowicz, P., 71	Iizuka, S., 177	Petr, Š., 145
Ayan, H., 1	Ikehara, S., 99	Plimpton, S.R., 109
Baldus, S., 71	Ikehara, Y., 99, 189	Russo, V., 237
Balsamo, R., 87	Ingels, R., 257	Saito, H., 177
Balzer, J., 71	Ito, S., 125	Sakakita, H., 99, 189
Belkind, A., 223	Ito, T., 283	Sanaei, N., 1
Brun, P., 237	Jaromír, K., 145	Sato, T., 299
Canad, J., 17	Jiaxing, J., 87	Schnabe, U., 27
Cavazzana, R., 237	Katz, J., 223	Sekimoto, K., 283
Corrao, S., 237	Keidar, M., 17	Seto, Y., 189
Deliagianni, V., 237	Kermalli, K., 87	Shamai, Y., 17
Demir, E., 71	Kim, J., 99, 189	Shimizu, K., 205
Dong, X., 57	Kirkels, E., 57	Shimizu, N., 99, 189
El Shaer, M., 249	Kiyama, S., 189	Short, R.D., 125
El-Aragi, G.M., 49	Kříž, P., 145	Singh, M.K., 159
Fridman, A., 87	Landford, W., 57	Sonoda, T., 271
Fridman, G., 87	Leonardi, A., 237	Spector, J.A., 57
Fuchs, P.C., 71	Leszczynski, J., 109	Suschek, C.V., 71
Furui, T., 299	Mann, M.S., 27	Szili, E.J., 125
Furuta, H., 125	Martines, E., 237	Tarricone, E., 237
Gaur, N., 125	Masukane, I., 189	Toyoda, Y., 57
Gershman, S., 223	McCollister, B., 109	Trink, B., 17
Gołkowski, C., 109	Miller, V., 87	Tzukerman, M., 17
Golkowski, C., 57	Miroslav, D., 145	Umeda, K., 271
Gołkowski, M., 109	Mobasher, M., 249	von Woedtke, T., 27
Gotoh, K., 283	Morrison, K.A., 57	Wang, D., 271
Graves, D.B., 257	Nagatsu, M., 159	Weihe, T., 27
Guevara, D., 57	Nakanishi, H., 99	Weinstein, A.L., 57
Hamaguchi, S., 283	Namihira, T., 271	Weltmann, K-D., 27
Han, J., 87	Niwa, T., 99, 189	Yamada, H., 99, 189
Hatta, A., 125	Oh, J-S., 125	Zaki, A., 249
Heuer, K., 71	Opländer, C., 71	Zbyněk, H., 145
Hoffmanns, M.A., 71	Pavel, O., 145	Zuin, M., 237

PLASMA MEDICINE

SUBJECT INDEX FOR VOLUME 5

Page Range of Issues Issue 1: 1-85; Issues 2-4: 87-320

- | | |
|--|---|
| acidification, 257 | hospital-acquired infections, 57 |
| agarose target, 125 | humidity, 249 |
| air plasma, 257 | in situ UV absorption spectroscopy, 125 |
| ammonia loss, 257 | inactivation effect, 49 |
| antimicrobial activity, 27 | International Electronics Commission, 189 |
| antioxidants, 71 | Lissajous figure, 249 |
| bacteria, 237 | load power, 189 |
| barrier discharge, 177 | low energy ionized gas coagulation |
| biomedical engineering, 57 | equipment, 99 |
| Birkeland, 257 | low temperature plasma, 189 |
| blood coagulation, 189 | microbial growth phases, 27 |
| buffer capacity viability, 71 | microplasma irradiation, 205 |
| Candida albicans, 27 | microwave plasma discharge, 145 |
| CAP treatment in cancer, 17 | minimally invasive surgery, 99, 189 |
| cauterization, 189 | mist, 249 |
| cell death ratio, 271 | mist-plasma jet, 271 |
| colony, 1 | mode transition, 249 |
| comparability, 27 | MRSA, 1 |
| computational analysis, 299 | multipeaks, 249 |
| DBD, 1, 249 | nitric acid, 257 |
| decontamination, 1 | nitric oxide, 71 |
| deoxygenation, 125 | non-thermal plasma sources, 27 |
| deoxynivalenol, 145 | nonthermal plasma, 109 |
| dielectric barrier discharges, 299 | nosocomial infections, 109 |
| disinfection, 109 | nutritive value, 145 |
| dry-plasma jet, 271 | organic fertilizer, 257 |
| electrical characterization, 249 | organic waste, 257 |
| Escherichia coli, 1, 27 | osmotic concentration, 71 |
| eukaryotic cells, 237 | ovarian cancer stem cells, 17 |
| fungi, 237 | ovarian cancer, 17 |
| gliding arc discharge, 49 | oxygenation, 125 |
| gliding arc, 145 | ozone therapy, 109 |
| HeLa cells, 271 | percutaneous absorption, 205 |
| hepatitis C virus, 49 | plant growth promotion, 177 |
| heterogeneity of cancer stem cells, 17 | plant hormone, 177 |
| high energy ionized gas coagulation | plasma coagulation, 99 |
| equipment, 99 | plasma drug delivery, 205 |
| high temperature plasma, 189 | plasma exposure, 49 |

- plasma flare current, 189
- plasma medicine, 57, 109
- plasma sterilization, 159
- plasma, 1
- reactive nitrogen species, 87
- reactive nitrogen, 257
- reactive oxygen species, 71, 87, 237
- reference method, 27
- RONS transport, 125
- seed treatment, 145
- spore-forming bacteria, 159
- Staphylococcus aureus*, 27
- sterilization methods, 57
- sterilization, 1, 299
- surface-wave plasma, 159
- thermal characteristics of plasmas, 99
- volume-wave plasma, 159
- water conservation, 87
- wound healing, 237