

Electrostatique , Decharges, Arcs et Procedes Plasmas

Publications :

G. Galli, H. Hamrita, M. J. Kirkpatrick, E. Odic, and C. Jammes, “A new discriminating high temperature fission chamber filled with xenon designed for sodium-cooled fast reactors,” *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 968, p. 163947, Jul. 2020, doi: 10.1016/j.nima.2020.163947.

H. Zhang, S. Feng, D. He, P. Molinié, and J. Bai, “Amplitude-variable output characteristics of triboelectric-electret nanogenerators during multiple working cycles”, *Nano Energy*, vol. 63, p. 103856, sept. 2019, doi: 10.1016/j.nanoen.2019.103856.

D. Hong *et al.*, “Evidence of a corona discharge induced by natural high voltage due to vertical potential gradient,” *Plasma Res. Express*, vol. 1, no. 1, p. 015013, Feb. 2019, doi: 10.1088/2516-1067/ab0563.

G. Galli *et al.*, “Paschen’s Law in Extreme Pressure and Temperature Conditions,” *IEEE Transactions on Plasma Science*, pp. 1–7, 2019, doi: 10.1109/TPS.2019.2896352.

L. Benmamas, P. Teste, E. Odic, G. Krebs, T. Hamiti « Contribution to the analysis of PWM inverter parameters influence on the partial discharge inception voltage » *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol. 26, no 1 (january 2019) : 146-152

G. Galli *et al.*, “Characterization and Localization of Partial-Discharge-Induced Pulses in Fission Chambers Designed for Sodium-Cooled Fast Reactors,” *IEEE Transactions on Nuclear Science*, vol. 65, no. 9, pp. 2412–2420, Sep. 2018, doi: 10.1109/TNS.2018.2861566.

Z. Kovalova, M. Leroy, M. J. Kirkpatrick, E. Odic, and Z. Machala, “Corona discharges with water electrospray for Escherichia coli biofilm eradication on a surface,” *Bioelectrochemistry*, vol. 112, pp. 91–99, Dec. 2016, doi: 10.1016/j.bioelechem.2016.05.002.

P. Molinié, « A Panorama of Electrical Conduction Models in Dielectrics, With Application to Spacecraft Charging », *IEEE Transactions on Plasma Science*, vol. 43, n° 9, p. 2869-2874, sept. 2015, doi: 10.1109/TPS.2015.2461625.

Kovalova Z, Leroy M, Jacobs C, Kirkpatrick MJ, Machala Z, Lopes F, Laux CO, DuBow MS and Odic E. Atmospheric pressure argon surface discharges propagated in long tubes: physical characterization and application to bio-decontamination. *J. Physics D: Applied Physics* 48: 464003 (2015).

K. Almaksour *et al.*, “Experimental study of the reduction of field emission by gas injection in vacuum for accelerator applications,” *Phys. Rev. ST Accel. Beams*, vol. 17, no. 10, p. 103502, Oct. 2014, doi: 10.1103/PhysRevSTAB.17.103502.

R. Hanna, T. Paulmier, P. Molinié, M. Belhaj, B. Dirassen, D. Payan, and N. Balcon, « Radiation induced conductivity in space dielectric materials », *Journal of Applied Physics*, vol. 115, n° 3, p. 033713, 2014.

F. Sainct, D Lacoste, M. J. Kirkpatrick, E. Odic C. Laux "Temporal evolution of temperature and OH density produced by nanosecond repetitively pulsed discharges in water vapour at atmospheric pressure" *J. Phys. D: Appl. Phys.* 47 (2014) 075204 (8p) doi:10.1088/0022-3727/47/7/075204

S. Limam, E. Odic, M.J. Kirkpatrick, A-M. Pointu, "Bacterial decontamination of the inner wall of narrow tube by a nitrogen afterglow at atmospheric pressure and its relation to local atomic nitrogen concentration" *Plasma Process. Polym.* (2013) Vol. 10, Issue 8, pp. 679–685 DOI: 10.1002/ppap.201200170

R. Hanna, T. Paulmier, P. Molinié, M. Belhaj, B. Dirassen, D. Payan, and N. Balcon, « Radiation Induced Conductivity in Teflon FEP Irradiated With Multienergetic Electron Beam », *IEEE Transactions on Plasma Science*, vol. 41, n° 12, p. 3520-3525, déc. 2013, doi: 10.1109/TPS.2013.2287097.

P. Molinié, P. Dessante, R. Hanna, T. Paulmier, P. Molinié, M. Belhaj, B. Dirassen, D. Payan, and N. Balcon, « Polyimide and FEP charging behavior under multienergetic electron-beam irradiation », *Dielectrics and Electrical Insulation, IEEE Transactions on*, vol. 19, n° 4, p. 1215–1220, 2012.

P. Molinié, « A Review of Mechanisms and Models Accounting for Surface Potential Decay », *IEEE Transactions on Plasma Science*, vol. 40, n° 2, p. 167-176, févr. 2012, doi: 10.1109/TPS.2011.2171372.