LISTA LUCRARILOR PUBLICATE

A. Lucrari selectate

P1. L. Sirghi, M. Nakamura, Y. Hatanaka, O. Takai, *Atomic Force Microscopy Study of the Hydrophilicity of TiO_2 Thin Films Obtained by Radio Frequency Magnetron Sputtering and Plasma Enhanced Chemical Vapor Depositions,* Langmuir **17** (2001) 8199-8203.

P2. L. Sirghi, T. Aoki, Y. Hatanaka, *Hydrophilicity of TiO_2 thin films obtained by radio frequency magnetron sputtering deposition,* Thin Solid Films **422** (2002) 55-61.

P3. L. Sirghi, Y. Hatanaka, *Hydrophilicity of amorphous TiO_2 ultra-thin films,* Surface Science **530** (2003) L323-L327 (Surface Science Letters)

P4. L. Sirghi, G. Popa, Y. Hatanaka, *Heating of polymer substrate by discharge plasma in radiofrequency magnetron sputtering deposition,* Thin Solid Films **515** (2006) 1334-1339.

P5. L. Sirghi, A. Ruiz, P. Colpo, F. Rossi, *Atomic force microscopy indentation of fluorocarbon thin films fabricated by plasma enhanced chemical deposition at low radio frequency power,* Thin Solid Films 517 (2009) 3310-3314.

P6. L. Sirghi, O. Kylian, D. Gilliland, G. Ceccone, F. Rossi, *Cleaning and Hydrophilization of Atomic Force Microscopy Silicon Probes,* J. Phys. Chem. B **110** *(*2006) 25975-25981

P7. L. Sirghi, R. Szoszkiewicz, E. Riedo, *Volume of a Nanoscale Water Bridge,* Langmuir **22** (2006) 1093-1098.

P8. L. Sirghi, *Effect of capillary-condensed water on the dynamic friction force at nanoasperity contacts,* Appl. Phys. Lett. 82 (2003) 3755.

P9. L. Sirghi, F. Bretagnol, S. Mornet, T. Sasaki, D. Gilliland, P. Colpo, F. Rossi, *Atomic force microscopy characterization of the chemical contrast of nanoscale patterns fabricated by electron beam lithography on polyethylene glycol oxide thin films,* Ultramicroscopy **109** (2009) 222–229.

P10. L. Sirghi, F. Rossi, *Adhesion and Elasticity in Nanoscale Indentation*, Applied Physics Letters **89** (2006) 243118.

B. Teza de doctorat:

Contributii la Studiul unor Instabilitati in Plasmele Colizionale Universitatea "Alexandru Ioan Cuza", Iasi 1997, Romania

C. Brevete de inventie

L. Sirghi, V. Tiron, G. Popa, *Instalatie si procedeu de sinteza si control al dopajului cu atomi metalici a straturilor subtiri in descarcarea magnetron pulsata, Cerere* OSIM 1/00735 din 13.12.2011.

D. Carti si capitole in carti

1. *Water Condensation at Nanoscale: An Atomic Force Microscopy Study* (chapter), Lucel Sirghi, Water Condensation: Processes, Modeling and Control (Ed. Amimul Ahsan) pp.71-98 (2012).
2. *Atomic Force Microscopy Indentation of Living Cells* (chapter), L. Sirghi, Microscopy: Science, Technology, Application and Education, Formatex Microscopy Series no. 4 (eds.: A. Méndez-Vilas, J. Díaz), Formatex 2010.
3. *Nanostructured Materials for Advanced Technological Applications: Tantalum pentoxide as a material for biosensors: deposition, properties and applications* (chapter), W. Kulisch, D. Gilliland, Ceccone G., L. Sirghi, H. Rauscher, P. N. Gibson, M. Zurn, F. Bretagnol, F. Rossi, p. 509-524 -NATO Science for Peace Series B: Physics and Biophysics (eds. J. P. Reithmaier, P. Petkov, W. Kulisch, C. Popov) Springer 2008
4. *Nanostructured Materials for Advanced Technological Applications: A brief introduction* (chapter), W. Kulisch, R. Freudenstein, A. Ruiz, A. Valsesia, L. Sirghi, J. Ponti, P. Colpo, F. Rossi, p. 3-34, NATO Science for Peace Series B: Physics and Biophysics (eds. J. P. Reithmaier, P. Petkov, W. Kulisch, C. Popov) Springer 2008
5. *Atomic Force Microscopy Techniques of Surface Investigation* (chapter) L. Sirghi in *Advances in micro- and nanoengineering* (ed. Irina Kleps, Dan Dascalu, and Jose Kenny) Romanian Academy Publishing House, Bucharest 2004 (IBSN: 973-27-1110-8).
6. *Bazele Fizicii Plasmei* G. Popa and L. Sirghi, 320p, Editura Universitatii "Al. I. Cuza", Iasi, Romania, 2000 (IBSN: 973-9312-80-2).

E. Lucrari in extensor publicate in reviste ISI

1. *Transport mechanisms in capillary condensation of water at single asperity contacts*, Sirghi, L. Langmuir 28 (2012) 2558.
2. *Doping Control of ZnO:Al thin films deposited by high power impulse magnetron sputtering*, V. Tiron, L. Sirghi, G. Popa, Thin Solid Films 520 (2012) 4305.
3. *Plasma cleaning of silicon surface of atomic force microscopy probes*, L. Sirghi, Rom. J. Phys. 56 (2011) 144.
4. *On the development of the morphology of ultrananocrystalline diamond films.* Wilhelm Kulisch, Cyril Popov, Takao Sasaki, Lucel Sirghi, Hubert Rauscher, Francois Rossi, and Johann Peter Reithmaier, Physica Status Solidi A 208 (2011) 70
5. *Inactivation of Bacteria and Biomolecules by Low-Pressure Plasma Discharges*, A. von Keudell, P. Awakowicz, J. Benedikt, V. Raballand, A. Yanguas-Gil, J. Opretzka, C. Flotgen, R. Reuter, L. Byelykh, H. Halfmann, K. Stapelmann, B. Denis, J. Wunderlich, P. Muranyi, F. Rossi, O. Kylia´n, N. Hasiwa, A. Ruiz, H. Rauscher, L. Sirghi, E. Comoy, C. Dehen, L. Challier, J. P. Deslys, Plasma Processes and Polymers **7**, 3-4, 327-352 (2010).
6. *The effect of adhesion on the contact radius in atomic force microscopy indentation*, L. Sirghi, F. Rossi, Nanotechnology 20(36) 365702 (2009).
7. *Atomic force microscopy indentation of fluorocarbon thin films obtained by plasma enhanced chemical deposition at low radio frequency power*, L. Sirghi, A. Ruiz, P. Colpo, F. Rossi, Thin Solid Films **517** (11) 3310-3314 (2009)
8. *Removal of Model Proteins Using Beams of Argon Ions, Oxygen Atoms and Molecules: Mimicking the Action of Low-Pressure Ar/O-2 ICP Discharges*, O. Kylian, J. Benedikt, L. Sirghi, R. Reuter, H. Rauscher, A. von Keudell, F. Rossi, Plasma Processes and Polymers **6** (4) 255-261 (2009).
9. *Ion beam sputtering of Ta_2O_5 films on thermoplast substrates as waveguides for biosensors*, W. Kulisch, D. Gilliland, G. Ceccone, L. Sirghi, J. Vac. Scie. Tech. B **27** (3) 1180-1190 (2009).
10. *Fabrication and characterization of protein arrays for stem cell patterning*, L. Ceriotti, L. Buzanska, H. Rauscher, I. Mannelli, L. Sirghi, D. Gilliland, M. Hasiwa, F. Bretagnol, M. Zychowicz, A. Ruiz, S. Bremer, S. Coecke, P. Colpo, F. Rossi, Soft Matter **5 (**7) 1406-1416 **(**2009).

11. *Surface properties of differently prepared ultrananocrystalline diamond surfaces* W. Kulisch,, C. Popov, D. Gilliland, G. Ceccone, L. Sirghi, A. Ruiz, F. Rossi, Diamond and Related Materials 18 745-749 (2009)

12. *Atomic force microscopy characterization of the chemical contrast of nanoscale patterns fabricated by electron beam lithography on polyethylene glycol oxide thin films*, L. Sirghi, F. Bretagnol, S. Mornet, T. Sasaki, D. Gilliland, P. Colpo, F. Rossi, Ultramicroscopy **109 (**3) 222-229 (2009)

13. *Large-scale fabrication of bi-functional Nanostructured Polymer Surfaces for Selective Biomolecular Adhesion*, Mornet, S., Bretagnol, F., Mannelli, I., Valsesia, A., Sirghi, L., Colpo, P., Rossi, F. Small (2008).

14. *Micro-stamped surfaces for the patterned growth of neural stem cells*, Ruiz, A., Buzanska, L., Gilliland, D., Rauscher, H., Sirghi, L., Sobanski, T., Zychowicz, M., Ceriotti, L., Bretagnol, F., Coecke, S., Colpo, P., Rossi, F. Biomaterials (2008).

15. *Use of a low-pressure plasma discharge for the decontamination and sterilization of medical devices*, Rossi, F., Kylian, O., Rauscher, H., Gilliland, D., Sirghi, L. Pure and Applied Chemistry 80, pp. 1939-1951(2008).

16. *Ion beam deposition of tantalum pentoxide thin film at room temperature*, Kulisch, W., Gilliland, D., Ceccone, G., Rauscher, H., Sirghi, L., Colpo, P., Rossi, F. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films 26 (2008) pp. 991-995.

17. *Investigation of the nucleation and growth mechanisms of nanocrystalline diamond/amorphous carbon nanocomposite films*, Kulisch, W., Popov, C., Rauscher, H., Sirghi, L., Sasaki, T., Bliznakov, S., Rossi, F. Diamond and Related Materials 17 (2008) pp. 1116-1121.

18. *Probing elasticity and adhesion of live cells by atomic force microscopy indentation*, Sirghi, L., Ponti, J., Broggi, F., Rossi, F. European Biophysics Journal 37 (2008) pp. 935-945.

19. *Surface modification of nanocrystalline diamond/amorphous carbon composite films*, Popov, C., Kulisch, W., Bliznakov, S., Ceccone, G., Gilliland, D., Sirghi, L., Rossi, F. Diamond and Related Materials 17 (2008) pp. 1229-1234.

20. *Poly(N-isopropylacrylamide) grafted on plasma-activated poly (ethylene oxide): Thermal response and interaction with proteins*, Heinz, P., Brétagnol, F., Mannelli, I., Sirghi, L., Valsesia, A., Ceccone, G., Gilliland, D., Landfester, K., Rauscher, H., Rossi, F. (2008) Langmuir, 24 (12), pp. 6166-6175.

21. *Direct fabrication of nanoscale bio-adhesive patterns by electron beam surface modification of plasma polymerized poly ethylene oxide-like coatings*, Brétagnol, F., Sirghi, L., Mornet, S., Sasaki, T., Gilliland, D., Colpo, P., Rossi, F. Nanotechnology, 19 (2008).

22. *Use of low-pressure plasma discharge for decontamination and sterilization of medical devices.* F. Rossi, O. Kylian, H. Rauscher, D. Gilliland,L. Sirghi, Pure Appl. Chem. 80 (2008) 1939.

23. *Formation of Viscoelastic protein droplets on a Chemically Functionalized Surface*, S. Belegrinou, I. Mannelli, L. Sirghi, F. Bretagnol, A. Valsesia, H. Rauscher, F. Rossi, J. Phys. Chem. B Letters 111 (2007) 8713-8716.

24. *Surface and bioproperties of nanocrystalline diamond/amorphous carbon nanocomposite films*, W. Kulich, C. Popov, S. Bliznakov, G. Ceccone, D. Gilliland, L. Sirghi, F. Rossi, Thin Solid Films 515 (2007) 8407-8411.

25. *Single- and few-walled carbon nanotubes grown at temperatures as low as 450 degrees C: Electrical and field emission characterization*, Gohier, A.; Djouadi, M. A.; Dubosc, M.; Granier, A.; Minea, T. M.; Sirghi, L.; Rossi, F.; Paredez, P.; Alvarez, F., J. Nanosci. Nanotech. 7(2007) 3350.

26. *Adhesion and elasticity in nanoscale indentation*, Sirghi, L., Rossi, Applied Physics Letters, 89 (2006).24318

27. *Cleaning and hydrophilization of atomic force microscopy silicon probes*, Sirghi, L., Kylián, O., Gilliland, D., Ceccone, G., Rossi, F., Journal of Physical Chemistry B 110 (2006) 25975-25981.

28. *Heating of polymer substrate by discharge plasma in radiofrequency magnetron sputtering deposition*, Sirghi, L. , Popa, G. , Hatanaka, Y., Thin Solid Films 515 (2006) 1334-1339

29. *Volume of a nanoscale water bridge*, Sirghi, L., Szoszkiewicz, R. Langmuir 22 (2006) 1093-1098.

30. *Photocatalytic chemisorption of water on titanium dioxide thin films obtained by radio frequency magnetron deposition*, Sirghi, L. , Hatanaka, Y. , Aoki, T. Applied Surface Science 244 (2005) 408-411.

31. *Photoinduced bactericidal activity of TiO2 thin films obtained by radiofrequency magnetron sputtering deposition*, Miron, C., Roca, A., Hoisie, S., Cozorici, P., Sirghi, L. Journal of Optoelectronics and Advanced Materials 7 (2005) 915-919.

32. *Diagnostics of the radio frequency magnetron discharge plasma used for TiO2 thin film sputtering deposition*, L. Sirghi, T. Aoki, and Y. Hatanaka, Surface and Coating Technology 187 (2004) 358-363.

33. "*Hydrophilicity of TiO2 ultra-thin films*", L. Sirghi and Y. Hatanaka, Surface Science 530 (2003) L323.

34. "*Effect of Capillary-Condensed Water on the Friction Force at Nano-Asperity Contacts*", L. Sirghi, Appl. Phys. Lett. 82 (2003) 3755.

35. *Hydrophilic properties of hydro-oxygenated TiOx films prepared by plasma enhanced chemical vapor deposition*, M. Nakamura, K. Makino, L. Sirghi, T. Aoki, Y. Hatanaka, Surface and Coating Technology 169-170 (2003) 699-702.

36. "*Formation of nanostructures on surface of SiC by laser radiation*", A. Medvid, B. Berzina, L. Trinkler, L. Fedorenko, P. Lytvyn, N. Yusupov, T. Yamaguchi, L. Sirghi and M. Aoyama, Phys. Stat. Sol. A (2003).

37. *Friction Force Microscopy Study of the Hydrophilicity of TiO_2 Thin Films Obtained by Radio Frequency Magnetron Sputtering Deposition*" L. Sirghi, T. Aoki and Y. Hatanaka, Surface Review Letters 10 (2003).

38. "*Hydrophilicity of TiO_2 Thin Films Obtained by Radio Frequency Magnetron Sputtering Deposition*" L. Sirghi, T. Aoki and Y. Hatanaka, Thin Solid Films 422 (2002) 55-61.

39. "*Study on the hydrophilic property of hydro-oxygenated amorphous TiOx:OH thin film*" M. Nakamura, L. Sirghi, T. Aoki, Y. Hatanaka, Surf. Science 507-510 (2002) 778.

40. "*La fonction de distribution des electrons dans une decharge magnetron dans 'argon avec une cible en aluminium*", I. Mihaila, G. Popa, V. Anita, C. Costin, L. Sirghi, and I. Turcu, Vide 2/4 (2002) 316.

41. "*Control of plasma parameters and wall sheath voltage in rf magnetron discharge by grid bias*" L. Sirghi, Y. Hatanaka and G. Popa, J. Appl. Phys. 91 (2002) 4026.

42. "*AFM Study of the Hydrophilicity of TiO_2 Thin Films obtained by RF Magnetron Discharge Sputtering Deposition*" L. Sirghi, M. Nakamura, Y. Hatanaka and O. Takai, Langmuir 17 (2001) 8199.

43. "*Formation mechanism for TiOx thin film obtained by remote plasma enhanced chemical vapor deposition in H_2-O_2 mixture gas plasma*" M. Nakamura, S. Kato, T. Aoki, L. Sirghi and Y. Hatanaka, Thin Solid Films 401 (2001) 138.

44. "*Role of terminal OH groups on the electrical and hydrophilic properties of hydro-oxygenated amorphous TiOx:OH thin films*" M. Nakamura, S. Kato, T. Aoki, L. Sirghi and Y. Hatanaka, J. Appl. Phys. 90 (2001) 3391.
45. "*Analysis of Atomic Force Curve Data for Mapping of Surface properties in Wate*r", L. Sirghi, N. Nakagiri, H. Sugimura and O. Takai, Jpn. J. Appl. Phys. 40 (2001) 1420-1424.
46. "*Effect of the Sample Topography on the Adhesive Force in Atomic Force Spectroscopy Measurements in Air*" L. Sirghi, Nobuyuki Nakagiri, Katsumi Sugisaki, Hiroyuki Sugimura and Osamu Takai, Langmuir 16 (2000) 7796-7800.
47. "*Electron Kinetics in the Hot-Cathode Negative Glow of a Helium Discharge*", L. Sirghi, K Ohe, C Costin and G Popa, Jpn. J. Appl. Phys. 39 (2000) p. 1338-1342.
48. "*Electron Kinetics of Ionization Waves in Helium Positive Column Plasma*", L. Sirghi, K. Ohe and G. Popa, Jpn. J. Appl. Phys. 38 (1999) p.5251-5255.
49. "*Role of the cathode region of a direct current helium discharge for origination of ionization waves*", L. Sirghi, K. Ohe and G. Popa, J. Phys. D: Appl. Phys. 31 (1998) p.551
50. "*Interactions between Ionization Waves and Potential Structure Formed at a Constriction of the dc He Positive Column*", L. Sirghi, K. Ohe, and G. Popa, J. Phys. D: Appl. Phys. 30 (1997) 2045
51. "*Nonlocal particle loss effects on the electron kinetics in a direct current helium diffusion-controlled positive column*", L. Sirghi, K. Ohe, and T. Kimura, Phys. Plasmas 4 (1997) 1060

F. Comunicari la Conferinte Internationale

1) *Turbulence of magnetized plasma column at a floating and current-driving target surface in Pilot-PSI*, L. Sirghi, C. Costin, V. Anita, M. L. Solomon, G. Popa, M. van de Pol, R. S. Al, J. Rapp, International Conference on Phenomena in Ionized Gases (ICPIG 2011) 28AUG-02SEPT 2011, Belfast, Northern Ireland, UK.
2) *Plasma cleaning of silicon surface of atomic force microscopy probes*, L. Sirghi, 15th International Conference on Plasma Physics and Applications, JUL 01-04, 2010, Iasi, ROMANIA
3) *Probing nonspecific Adhesion in Atomic Force Microscopy Indentation of Living Cells*, L. Sirghi, J. Ponti, S. Gioria, F. Rossi, 7th International Symposium on SPM in Life Sciences, Berlin (Germany), 8-9 October 2008

4) *Effect of Molecule Anchoring Positions on the Force-Extension Curves Measured in the Atomic Force Spectroscopy Experiments on Chain Molecules*, L. Sirghi, F. Rossi, AFM BioMed Conference, Barcelona, Spain, April 2007

5) *Probing Elasticity and Adhesion of Living Cells by Atomic Force Microscopy*, L. Sirghi, J. Ponti, F. Broggi, F. Rossi -AFM BioMed Conference, Barcelona, Spain, April 2007.

6) *Investigation of the nucleation and growth mechanisms of nanocrystalline diamond/amorphous carbon nanocomposite films,* Kulisch, W; Popov, C; Rauscher, H; Sirghi, L; Sasaki, T; Bliznakov, S; Rossi, F*,* 18th European Conference on Diamond, Diamond-Like Materials, Carbon Nanotubes, Nitrides and Silicon Carbide**,** SEP 09-14, 2007 Berlin GERMANY

7) *Surface Modification of Nanocrystalline Diamond / Amorphous Carbon Composite Films,* C. Popov, W. Kulisch, S. Bliznakov, G. Ceccone, D. Gilliland, L. Sirghi, F. Rossi*,* 18th European Conference on Diamond, Diamond-Like Materials, Carbon Nanotubes, Nitrides and Silicon Carbide**,** SEP 09-14, 2007 Berlin GERMANY

8) *TI Ion beam deposition of tantalum pentoxide thin film at room temperature*, Kulisch, W; Gilliland, D; Ceccone, G; Rauscher, H; Sirghi, L; Colpo, P; Rossi, F, 54th AVS International Symposium and Exhibition, OCT 14-19, 2007, Seattle, (United States of America).

9) *Sterilization and Decontamination by Means of O2/H2 Low Pressure Microwave Discharge* O. KYLIAN, M. HASIWA, T. SASAKI, D. GILLILAND, L. SIRGHI, H. RAUSCHER, G. CECCONE, F. ROSSI - International Conference on Phenomena in Ionized Gases, Prague (Czech Republic) 2007

10) *Protein Film Removal by Means of Low-Pressure Microwave Plasma*, O. KYLIAN, H. RAUSCHER, L. SIRGHI, F. ROSSI, International Vacuum Congress-17, 13th-International Conference on Surface Science, International Conference on Nanoscience and Technology 2007, Stockholm (Sweden),

11) *Use of a low-pressure plasma discharge for the decontamination and sterilization of medical devices*, Rossi, F; Kylian, O; Rauscher, H; Gilliland, D; Sirghi, L, 18th International Symposium on Plasma Chemistry (ISPC-18), AUG 26-31, 2007, Kyoto, JAPAN

12) *Protein and Cell Adhesion on Thermoresponsive pNIPAM Grafted on Plasma-Activated PEO* P. HEINZ; F. BRETAGNOL; M. HASIWA; I. MANNELLI; L. SIRGHI; L. CERIOTTI; A. VALSESIA; G. CECCONE; D. GILLILAND; H.; RAUSCHER; F. ROSSI-International Vacuum Congress-17, 13th-International Conference on Surface Science, International Conference on Nanoscience and Technology 2007, Stckholm

13) *Destruction of Biological Contamination by Low Pressure Inductively Coupled Plasma* O. KYLIAN, H. RAUSCHER, L. SIRGHI, D. GILLILAND, G. CECCONE, M. HASIWA, F. FUMAGALLI, F. ROSSI - The 16th International Colloquium on Plasma Processes, Toulouse (France)

14) *Surface and Bioproperties of Nanocrystalline Diamond/Amorphous Carbon Nanocomposite Films* -. W. KULISCH, G. CECCONE, D. GILLILAND, L. SIRGHI, F. ROSSI, C. POPOV, S. BLIZNAKOV The International Conference on Metallurgical Coatings and Thin Films, San Diego, California (United States of America).

15) *TI Surface and bioproperties of nanocrystalline diamond/amorphous carbon nanocomposite films*, Kulisch, W; Popov, C; Bliznakov, S; Ceccone, G; Gilliland, D; Sirghi, L; Rossi, F, 5th International Workshop on Semiconductor Gas Sensors (SGS 2006) SEP 10-13, 2006, Ustron, POLAND

16) *Photoinduced bactericidal activity of TiO2 thin films obtained by radiofrequency magnetron sputtering deposition*, Miron, C; Roca, A; Hoisie, S; Cozorici, P; Sirghi, L, 7th International Conference on Physics of Advanced Materials, JUN 10-12, 2004, Iasi, ROMANIA

17) *Friction force microscopy study of the hydrophilicity of TiO2 thin films deposited by radio frequency magnetron sputtering*, Sirghi, L; Aoki, T; Hatanaka, Y, 7th International Conference on the Structure of Surfaces, JUL 21-26, 2002, Newcastle, AUSTRALIA

18) *Charged Particles in the Reactor Chamber of a Remote Plasma Enhanced CVD System*, L. Sirghi, G. Popa and Y. Hatanaka, 15-19 July, 2002, Sydney, Australia,. Proceedings. p.160

19) *Langmuir probe diagnosis of rf magnetron discharge plasma used for TiO2 thin film deposition*, L. Sirghi, H. Naito, T. Aoki, G. Popa and Y. Hatanaka, Proceedings of the third Takanayagi Kenjiro Memorial Symposium, 6-7, December 2001, Research Institute of Electronics, Shizuoka University, p. 45.

20) *Control of high-energy electron density by grid bias in magnetron rf discharge*, L. Sirghi and Y. Hatanaka, XXV International Conference on Phenomena in Ionized Gases 2001, 17-22 July, Nagoya, Japan

21) *Development of rf hollow cathode jet plasma source for application to CVD processing*, T. Ikeda, D. Korzec, L. Sirghi and Y. Hatanaka, XXV International Conference on Phenomena in Ionized Gases 2001, 17-22 July, Nagoya, Japan

22) *Study on hydrophilic property of hydro-oxygenated amorphous TiOx:OH thin films*, Nakamura, M; Sirghi, L; Aoki, T; Hatanaka, Y, 20th European Conference on Surface Science, SEP 04-07, 2001, KRAKOW, POLAND

23) *AFM study of Chemical Properties of the TiO2 thin films obtained by rf magnetron discharge sputtering deposition*, L. Sirghi, M. Nakamura and Y. Hatanaka, Plasma Science Symposium 2001/ The 18th Symposium on Plasma Processing, p. 599, Nagoya, Japan.

24) , *Monte Carlo simulation of electron kinetics in negative glow plasma of a thermionic cathode discharge in helium*, Sirghi, L; Costin, C; Popa, G; 24th International Conference on Phenomena in Ionized Gases, JUL 11-16, 1999, WARSAW, POLAND

25) *The cathode end of a dc helium positive column as a place of origination of ionization waves*, L. Sirghi, K. Ohe and G. Popa, ICPIG XXIIIth , Toulouse, France, July 1997, Proceedings Contributed Papers (Ed. M.C. Bordage and A. Gleizes, University Paul Sabatier, Toulouse 1997), Vol. II, p. 66

26) *Potential Structure formed at a constriction of a dc helium positive column and its coupling with ionization wav*e, L. Sirghi, K. Ohe, G. Popa, The Vth Symp. On Double Layers and Other Plasma Potential Structures, Sendai, Japan, p 83 (Ed. by Sendai "Plasma Forum", Tohoku Univ., World Scientific Publish. Co. Singapore 1996) 83

27) *Effect of particle wall loss on electron energy distribution function of d. c. helium diffusion-controlled positive column*, L. Sirghi, K. Ohe, ICPP'96 ,Nagoya, Japan, 1996

28) *On the interaction of ionization waves with double layer in positive plasma column*, L. Sirghi, M. Vasilache and G. Popa, The IVth Symp. On Double Layers and Other Plasma Potential Structures, Insbruk, Austria 1992, ed. R. Schritvieser, p. 285

Iasi, 28 March 2012 conf. dr. Lucel Sirghi