

# CURRICULUM VITAE

**Enikő György**

Senior scientific Researcher, 1<sup>st</sup> degree

INSTITUTE OF ATOMIC PHYSICS

NATIONAL INSTITUTE FOR LASERS, PLASMA AND RADIATION PHYSICS

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## EDUCATION

B.Sc in Physics	Faculty of Physics, University of Bucharest, Romania <i>overall mark:9.62</i>	1989-1994
Master in Physics	Faculty of Physics, University of Bucharest, Romania <i>overall mark:10</i>	1994-1995

Ph.D in Physics 10 Febr. 1999	Institute of Atomic Physics, Bucharest, Romania	1995-1999
Post-doctoral Fellowship Spanish Ministry of Education and Culture	University of Barcelona, Spain	2000-2003

## PROFESSIONAL ACTIVITY

Research Assistant	Institute of Atomic Physics, National Institute for Lasers, Plasma and Radiations Physics, Bucharest, Romania	1994-1995
Scientific Researcher	Institute of Atomic Physics, National Institute for Lasers, Plasma and Radiations Physics, Bucharest, Romania	1996 – 2006
Senior Scientific Researcher 1 <sup>st</sup> degree	Institute of Atomic Physics, National Institute for Lasers, Plasma and Radiations Physics, Bucharest, Romania	2006 – present
Senior Scientific Researcher	Institute of Materials Science of Barcelona, Consejo Superior de Investigaciones Científicas, Spain	2008-present

## SCIENTIFIC COLLABORATIONS AND RESEARCH STAGES

1.	University of Salento, Italy
2.	“Johannes Kepler” University Linz, Austria
3.	Institute of Electronic Structures and Lasers, Foundation for Research and Technology of Hellas, FORTH-IESL, Heraklion, Greece
4.	University of Milano, Italy
5.	Institute of Theoretical Physics and Chemistry, Foundation for Research and Technology of Hellas, Athens, Greece
6.	Institute of Electronics, Sofia, Bulgaria
7.	Institute of Solid State Physics, Sofia, Bulgaria
8.	Institute of Physics, Prague, Check Republic
9.	”József Attila University of Szeged, Hungary
10.	University of Barcelona, Spain
11.	Instituto de Tecnologia Química e Biológica /Universidade Nova de Lisboa (ITQB/UNL)

12.	Swiss Federal Laboratories for Materials Science and Technology, Lerchenfeldstr 5, CH-9014 St. Gallen, Switzerland
13.	Rutgers University Camden, 227 Penn Street, Camden, New Jersey 08102, United States
14.	ALBA Synchrotron, Barcelona

## MAIN FIELDS OF INTEREST:

- Non-conventional laser techniques for advanced materials processing
- Laser-matter interactions, direct laser irradiations using high repetition rate laser pulses, surface engineering: study of physical and chemical mechanisms induced by laser radiation; 3D structures growth; direct laser synthesis of oxide, nitride, and oxynitride layers on the surface of transition metal oxides
- Growth of noble metal-transition metal oxide nanocomposite layers for chemical and biological sensors and photocatalytic applications
- Laser processing and immobilisation of organic and bio-organic materials for medical applications

### **Recent research lines:**

- Synthesis of noble metal nanoparticles, nitrogen doped transition metal oxides, as well as noble metal and transition oxide nanocomposites through laser techniques, for sensing and photocatalytic applications
- Laser processing of nano-entities as carbon nanotubes, graphene, inorganic core-shell quantum dots
- Study of the physical mechanisms taking place during laser processing of nano-entities
- Non-conventional laser techniques for the immobilization of biomolecules and hybrid bio-inorganic materials for medical implants and biosensors

### **Studied materials:**

- nanostructures and thin films: Ti, Si, Ta, TiC,  $\text{Si}_3\text{N}_4$ , SiC,  $\text{CN}_x$ ,  $\text{CW}_x$ , TiN,  $\text{TiO}_2$ ,  $\text{TiN}_x\text{O}_y$ ,  $\text{WO}_3$ , NiO, ZnO, AlN, CdSe/ZnS quantum dots, Si-Ge nanoparticles,  $\text{TaO}_x$ , carbon nanotubes, graphene, graphene oxide
- biomaterials - proteins (papain, creatinine, urease, RNase A), polysaccharides, hydroxyapatite ( $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ ), silica bioglasses
- transition metal oxide ( $\text{ZnO}$ ,  $\text{TiO}_2$ ,  $\text{WO}_3$ ) – noble metal (Au, Ag) nanocomposites.

## PARTICIPATION IN RESEARCH PROJECTS

### **National research contracts:**

1. MEC 329/2002 “Diffusion and recrystallisation of semiconductor materials through direct laser treatment: an innovative process consisting of an unique technological step”, 2001-2002, Romanian Ministry for Education and Science
2. MEC 328/2002: “Thin films for magneto-optical sensors, non-linear waveguides by reactive laser deposition: fundamental physical processes and technological developments”, 2000-2002, Romanian Ministry for Education and Science
3. Romanian Academy 47/2000: “Study of the physical processes taking place in the ablation plasma during pulsed laser deposition. Establishment of the correlation between the physical parameters of the plasma and the characteristics of the nanometer sized structures obtained by pulsed laser deposition”, 1998-1999

5. MCT “*Pulsed laser deposition en reactive chemical atmosphere: application to the synthesis of carbon-nitride thin films ( $C_3N_4$ )*”, 1997-1998, Romanian Ministry for Education and Science
6. CERES 138: “*Synthesis, characterization and applications of thin films and multistructures of AlN, BN, and SiC obtained by pulsed laser deposition and reactive pulsed laser deposition*”, 2001-2004, Romanian Ministry for Education and Science

**International research contracts:**

1. Inter-Governmental “*Laser Generated Plasma Investigations and Applications in Thin Films Synthesis*”, 1996-1998, University of Milano, Italy
2. Inter-Governmental “*Laser Deposition of Thin Oxide Films for Applications in Optoelectronics*”, 2001- 2002, University of Lecce, Italy
3. Inter-Governmental “*Deposition and Characterisation of hard thin films*”, 1996-1998, University of Lecce, Italy
4. Inter-Governmental “*Laser deposition of thin films of nitrides and carbides*”, 1998-2000, Institute of Electronic Structure and Lasers, Fundation for Research and Technology – Hellas, FORTH-IESL, Heraklion, Greece
5. Inter-Governmental “*Laser deposition of thin films of nitrides and carbides*”, 2000-2002, Institute of Electronic Structure and Lasers, Fundation for Research and Technology – Hellas, FORTH-IESL, Heraklion, Greece
6. Bulgarian Academy of Science “*Optical and electrical investigations of the structures obtained by pulsed laser deposition or laser surface processing*”, 1998-2000, Institute of Solid State Physics, Sofia
7. Bulgarian Academy of Science “*Pulsed laser deposition of oxide thin films*”, 2000-2003, Institute of Electronics, Sofia
8. Bulgarian Academy of Science “*Electrical and Optical Properties of CNx-Si, WCx-Si, AlNx-Si and BNx-Si*”, 2001-2004, Institute of Solid State Physics, Sofia
9. Academy of Science of the Chech Republic “*Pulsed laser deposition of thin films*”, 2001-2003, Institute of Physics, Prague
10. Hungarian Academy of Science “*Pulsed laser deposition of oxide, nitride and carbide thin films*”, 2000-2002, University “Jozsef Attila” of Szeged
11. FP5 “*Innovative preparation methods and new materials*”, SIMI, G5RD-CT-2000-00423, 2001-2004
12. FP5 “*Fotonic Sensors*”, NANOPHOS, IST-2001-39112, 2003-2006
13. INCO-COPERNICUS IC15-CT98-0807, “*Inter-European Network of Pulsed Laser Deposition of Innovative Materials*”, INPULSNET, 1998-2002
14. NATO-CLG PST.CLG.977325 “*Multiwavelength laser plasma investigations for applications in thin films deposition and processing*”, 2001-2002
15. NATO-CLG PST.CLG 980464 “*Deposition of doped thin films with the aid of two synchronised laser systems for nano-electronic applications*”, 2003-2004

## RESPONSIBLE OF RESEARCH PROJECTS

**National research contracts:**

1. CNCSIS 863/2006 “*Multifunctional oxide thin films for optical gas sensor applications*”, 2006-2008, Romanian National University Council, 25.000 EURO/year
2. CEEX 150/2006 “*Laser techniques for biosensors design and fabrication*”, BIOSENSOR, 2006-2008, Romanian Ministry for Education and Science, 350.000 EURO
3. IDEAS 1290/2009 “*Innovative processing of biomaterials with the aid of laser radiation for controlled drug delivery and detection devices*”, Romanian Ministry for Education and Science, 100.000 EURO

4. Partnership 162/2012 „Complex high surface area photoactive nano-materials for environmentally-friendly energy production and organic pollutants degradation” Romanian Ministry for Education and Science, 700.000 EURO, 4 partners implied, 230.000 EURO for the National Institute for Lasers, Plasma and Radiations Physics
5. IDEAS 85/2013 “Processing and immobilization by non-conventional laser techniques of nanocomposite materials for next-generation stretchable transparent electrodes” Romanian Ministry for Education and Science, 250.000 EURO
6. Experimental Demonstration Project (PED) 47/2017 „Photoactive carbon based nanocomposite materials for efficient wastewater treatment by organic pollutant removal” Romanian Ministry for Education and Science, 150.000 EURO
7. Exploratory Research Project (PCE) 175 / 2017 „Nanocomposite materials obtained by laser techniques for flexible electronic devices”, 200.000 EURO

**International research contracts:**

1. Inter-Governmental “Multiwavelength laser plasma investigations for applications in deposition of nitride thin films”, 2000-2002, Institute of Theoretical Physics and Chemistry, Athens, Greece
2. Inter-Governmental “Thin oxide films grown by laser techniques for optical sensor applications”, 2006-2007, University of Lecce, Italy
3. Inter-Governmental “Biosensors design using laser radiation”, 2006-2007, University “Jozsef Attila” of Szeged, Hungary
4. NATO EAP.RIG 981200 “Biosensors obtained by matrix assisted pulsed laser deposition”, 2004-2007
5. MAT2006-26534-E “Development of completely new laser techniques for the growth of biomolecular thin films”, Spanish Ministry for Education and Science, 86.000 EURO
6. 2007PT0007 “Development of biogenic amines optical biosensors by innovative laser nanostructuring of solid supports”, Consejo Superior de Investigaciones Cientificas, España, Fundacion para la Ciencia y Tecnología, Portugal
7. ENE2014-56109-C3-3-R, “Carbon and metal oxide hybrid nanocomposites for supercapacitor application” Spanish Ministry of Economy and Competitiveness
8. ENE2017-89210-C2-1-R, “Advanced fabrication of hybrid electrodes based on nanocarbon materials for supercapacitor applications” Spanish Ministry of Economy and Competitiveness
9. 2017092465-2018, "Synchrotron-based Fourier Transform Infrared Microspectroscopy investigations of graphene oxide / transition metal oxide nanocomposite thin films obtained by advanced laser techniques", ALBA Synchrotron, MIRAS beamline, Spain

**Expert evaluator-raportor of project proposals:**

**European Commission:**

- FP6, SSA Specific Support Actions, 2004
- FP7, LARGE scale integrating research projects, 2009
- FP7, PEOPLE Marie Curie Actions, IF 2012
- FP7, PEOPLE Marie Curie Actions, ITN 2013
- FP7, PEOPLE Marie Curie Actions, IF 2013
- Horizont2020, MSCA, IF 2014
- Horizont2020, LEIT, 2014
- Horizont2020, MSCA, ITN 2015
- Horizont2020, MSCA, IF 2015

- Horizont2020, **MSCA, IF** 2016
- ERA.Net RUS Plus for S&T Projects 2017
- Horizont2020, **MSCA, IF** 2017
- Horizont2020, **MSCA, DOC-FAM Postdocs Programme, COFUND**, 2017
- Horizont2020, **MSCA, IF** 2018
- Horizont2020, **MSCA DOC-FAM Postdocs Programme, COFUND**, 2018
- Horizont2020, **MSCA LEADING Fellows Postdocs Programme, COFUND**, 2018

### **Spanish Ministry of Education and Competitiveness**

- National Programme for Fostering Excellence in Scientific and Technical Research, competition 2011
- Postdoctoral Research Contracts, The National Distance Education University (UNED), competition 2014
- Youth Employment Promotion Contracts, competition 2015
- National Programme for Research Aimed at the Challenges of Society, competition 2017

### **Catalan Government, Agency for Management of University and Research Grants (AGAUR)**

- Agència per la Competitivitat de l'Empresa (ACCIÓ), TECNIOspring PLUS programme for individual mobility projects carried out by experienced researchers, competition 2018
- Call for Knowledge Industry Grants 2019 – LLAVOR and PRODUCTE Grants, competition 2019
- Call for Innovators Grants, competition 2019

### **Romanian Ministry of Education and Research**

- Multiannual scientific research / artistic creation projects, type **A** senior research groups, **AT** young research groups, and **TD** doctoral fellowships, competition 2005
- Collaborative research projects, **Partnerships, CEEEX**, competition 2007
- Multiannual scientific research / artistic creation projects, type **A** senior research groups, **AT** young research groups, and **TD** doctoral fellowships, competition 2007
- Collaborative research projects, **Partnerships, CEEEX**, competition 2008
- Creation of young research groups, **TE**, competition 2010
- Post-doctoral fellowships, **PD**, competition 2010
- Exploratory research projects, **IDEAS**, competition 2011
- Collaborative research projects, **Partnerships, PCCA**, competition 2013
- Core research projects, **NUCLEU**, competition 2016
- Projects for Transfer to the Economic Entities, **PTE**, competition 2016
- Innovative Enterprises of the type start-up or spin-off, **European Structural Funds**, competition 2016
- **EUREKA** projects, competition 2016
- Creation of young research groups, **TE**, competition 2016
- Post-doctoral fellowships, **PD**, competition 2016
- Complex projects realised in consortiums CDI (**PCCDI**) 2017
- Projects for Transfer to the Economic Entities, **PTE**, competition 2019

### **Hungarian Ministry of Education and Culture**

- Individual research projects financed by The Hungarian Scientific Research Fund (OTKA), competition 2005

### **National Science Centre, Poland**

- National research projects, competition 2012

- Acquisition of research equipments, competition 2012

### **Agencia Nacional de Promoción Científica y Tecnológica – ANPCyT, Argentina**

- Scientific and technological research projects, competition 2014

### **German Academic Exchange Service**

- DAAD fellowships, financed by the German Federal Foreign Office, the Federal Ministry of Education and Research, the Federal Ministry for Economic Cooperation and Development, and the European Union, competition 2017
- DAAD fellowships, competition 2018
- DAAD fellowships, competition 2020

### **Bulgarian National Science Fund**

- P. Beron call, MSCA inspired post-doctoral fellowships, competition 2019

### **Participation in Panel Meetings – member of evaluation Panels:**

- Collaborative research projects, **Partnerships, PCCA**, competition 2013
- Innovative Enterprises of the type start-up or spin-off, **European Structural Funds**, competition 2016
- Projects for Transfer to the Economic Entities, **PTE**, competition 2016
- Creation of young research groups, **TE**, competition 2016
- Post-doctoral fellowships, **PD**, competition 2016
- Complex projects realised in consortiums CDI (**PCCDI**) 2017

### **Participation in the organization and the management of the scientific research:**

Participation in the organization and setting of strategic research objectives in the field of physics in Romania in the short (2012-2014) and half (2015-2020) term - member in the cluster nr. 10 Applied Physics, Romanian Ministry of Education and Research, year 2011

### **Monitoring of ongoing research projects:**

- Monitoring of exploratory research projects, **IDEAS** financed under the call 2011, Romanian Ministry of Education and Research, mid-term evaluation in **2014**, final evaluation in **2016**
- Monitoring of post-doctoral projects **PD** financed under the call 2012, Romanian Ministry of Education and Research, final evaluation in **2015**
- Monitoring of core research projects, **NUCLEU**, competition 2016, mid-term evaluation in **January 2017**
- Monitoring of **H2020-MSCA-RISE** projects of competition 2014, innovation radar - examination of state and progress of the action implementation, final evaluation **November 2019**

### **Co-director of PhD Thesis:**

Guillaume Sauthier, “*Synthesis and characterization of undoped and nitrogen doped titanium oxide thin films for photocatalytic applications*”, Universitat Autònoma de Barcelona, Spain, 2008-2012

Pablo Garcia Lebière, “*Fabrication of nanocarbon-based supercapacitor electrodes through advanced laser processing*”, Universitat Autònoma de Barcelona, Spain, 2018-present

#### **Co-director of Master Thesis:**

Ana-Maria Anicai, “*Development of urease biosensors by matrix assisted pulsed laser evaporation method*” Polytechnique University of Bucharest, Romania, June 2008

Guillaume Sauthier, “*Laser synthesis of nitrogen doped titanium oxide thin films for photocatalytic applications*”, Universitat Autònoma de Barcelona, Spain, 2008

Iulian Mitache, “*Laser induced reduction and nitrogen doping of graphene oxide in titanium oxide / graphene oxide composites*”, University of Bucharest, Faculty of Physics, July 2015

Seyed Mahyad Komarizadeh Asl, “*Laser synthesis of photoactive nanocomposites for environmental applications*” Universitat Autònoma de Barcelona, Spain, September 2019

Maroua Omezzine Gnioua, “*Laser synthesis of carbon nanomaterial – transition metal oxide layers for environmental applications*” Universitat Autònoma de Barcelona, Spain, September 2019-June 2020

#### **PhD Thesis committee member:**

Camelia Popescu Cojanu, “*Contributions in the field of nanostructured thin films obtained by pulsed laser techniques for biosensors and controlled drug delivery*” University of Bucharest, Romania, November 2011

Maria Marilena Motoc, “*Immobilization by laser techniques of biomaterials for therapeutic applications*”, University of Bucharest, Romania, September 2014

Arevik Mushegyan Avetisyan, “*Synthesis and characterization of multilayer graphene nanostructures*” University of Barcelona, Spain, July 2019

Luis Fernando Pantoja Suárez, “*Carbon Nanotubes Grown on Stainless Steel for Supercapacitor Applications*”, University of Barcelona, Spain, September 2019

#### **Memberships**

External Member of the Hungarian Academy of Science

Member of the Physics Commission, Regional Committee in Cluj, Romania of the Hungarian Academy of Science

#### **Official referee of ISI quoted, high impact factor international journals:**

*Solid State Communications, Materials Letters, Journal of Optoelectronics and Advanced Materials, Journal of Physics D: Applied Physics, Surface and Coatings Technology, Sensors and Actuators B, The Journal of Physical Chemistry, Applied Surface Science, Journal of Materials Science, Materials Science and Engineering B, Journal of Physics: Condensed Matter, Applied Physics A: Materials & Processes, Europhysics Letters, Materials Chemistry and Physics, Journal of Hazardous Materials, Journal of Colloids and Interface Science, Advanced Biomaterials, Journal of the American Ceramic Society, Optics and Laser Technology, Physica B, Physica Status Solidi, Journal of Electronic Materials, Electrochemistry Communications, Journal of American Ceramic Society, Materials Science and Engineering C, Diamond & Related Materials, Thin Solid Films, Journal of Photochemistry and Photobiology, Catalysis Communications, Physical Chemistry Chemical Physics, RSC Advances, Materials & Design, New Journal of Chemistry, Advanced Optical Materials, Journal of Non-Crystalline Solids, ACS Applied Materials & Interfaces, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Langmuir, Nanoscale,*

*CrystEngComm, Carbon, Nanotechnology, Science of the Total Environment, Solid State Science, Chemical Engineering Journal, Materials Chemistry and Physics, Journal of Materials Chemistry A*

**Evaluator of book proposal:**

Elsevier - Dr Kostas Marinakis, Senior Acquisition Editor, Chemical and Biochemical Engineering, “*Graphitic carbon nitride: an uprising carbonaceous material; synthesis, characterisation and applications*”, Eds. S. Thomas, S. Anas

**Participation in working groups and scientific advisory committees:**

-Participation in a project of the Institutional Review Boards of the University of Albany and the National Bureau of Economic Research, USA, to identify scientific work that is of particularly high-impact and/or transformative in specific research fields; invited by Prof. Gerald Marschke, University of Albany, January, 2020

-Impact assessment, related to the impact generated in the industrial field by large research infrastructures, within the framework of RIPATHS project, Horizon2020. Objectives: observe and describe the impact of innovation arising in the industry from the results of experiments carried out by online users of synchrotron radiation and identification of pathways that allow impact generation.

**Awards:**

-*International Association of Advanced Materials (IAAM) Scientist Medal Award*, European Advanced Materials Congress, 23-25 August 2016, Stockholm, Sweden

- IOP Institute of Physics - Outstanding Reviewer award, the journal Nanotechnology, 2018

**Conference organization:**

-Member of International Advisory Committee  
10th International Conference on Photoexcited Processes and Applications, August 29 – September 2, 2016, Brasov, Romania

-Co-chair of the sessions: “*World Technology Forum*”  
“*Clean and Sustainable Energy Technologies*”  
European Advanced Materials Congress, 23-25 August 2016, Stockholm, Sweden

-Chair of the session: “*MAPLE and Materials Processing*”  
International High Power Laser Ablation and Directed Energy Conference, HPLA2018, 26-29 March 2018, Santa Fe, New Mexico, USA

- Member of Scientific Committee

-Chair of the session: "Laser Ablation for PLD and MAPLE"  
International High Power Laser Ablation and Directed Energy Conference, HPLA2020, 14-17 April 2020, Santa Fe, New Mexico, USA

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## LIST OF SCIENTIFIC PUBLICATIONS

### ARTICLES PUBLISHED IN ISI QUOTED SCIENTIFIC JOURNALS

- [1] "A parametric study of the deposition of the TiN thin films by Laser Reactive Ablation of Ti targets in N<sub>2</sub>: the roles of the total gas pressure and the contaminations with oxides"  
I. N. Mihailescu, N. Chitica, **E. György**, V. S. Teodorescu, A. Luches, A. Perrone, M. Martino, J. Neamtu  
Journal of Material Science, 31, (1996) 2909-2915
- [2] "The study of the crater forming on the surface of a Ti target submitted to a multipulse excimer laser irradiation under low pressure N<sub>2</sub>"  
V. S. Teodorescu, I. N. Mihailescu, **E. György**, A. Luches, M. Martino, L. C. Nistor, J. Van Landuyt  
Journal of Modern Optics, 43(9) (1996) 1773-1784
- [3] "Laser ablation in a reactive atmosphere: application to the synthesis and deposition of performant titanium carbide thin films"  
I. N. Mihailescu, **E. György**, M. Popescu, S. Csutak, G. Marin, I. Ursu, A. Luches, M. Martino, A. Perrone, J. Hermann  
Optical Engineering, 35(6), (1996) 1652-1655
- [4] "Synthesis and Deposition of Silicon Nitride Films by Laser Reactive Ablation of Silicon in Low Pressure Ammonia: a Parametric Study"  
I. N. Mihailescu, A. Lita, V. S. Teodorescu, **E. György**, R. Alexandrescu, A. Luches, M. Martino, A. Barborica  
Journal of Vacuum Science and Technology A, 14(4) (1996) 1986-1994
- [5] "Laser Reactive Ablation Deposition of Silicon Carbide Films"  
G. Leggieri, A. Luches, M. Martino, A. Perrone, R. Alexandrescu, A. Barborica, **E. György**, I.N. Mihailescu, G. Majni, P. Mengucci  
Applied Surface Science, 96-98, (1996) 866-869
- [6] "Synthesis of Tungsten Carbide Thin Films by Reactive Pulsed Laser Deposition"  
N. Chitica, **E. György**, A. Lita, G. Marin, I. N. Mihailescu, D. Pantelica, M. Petrascu, A. Hadgiapostol, C. Grivas, N. Broll, A. Cornet, C. Mirica, A. Andrei  
Thin Solid Films, 301, (1997) 71-76
- [7] "Characterisation of C-N thin films deposited by reactive excimer laser ablation of graphite targets in nitrogen atmosphere"

A. P. Caricato, G. Leggieri, A. Luches, A. Perrone, **E. György**, I. N. Mihailescu, M. Popescu, G. Barucca, P. Mengucci, J. Zemek, M. Trchova  
Thin Solid Films, 307, (1997) 54-59

[8] “Optical studies of carbo-nitride thin films deposited by reactive pulsed laser ablation of a graphite target in low pressure ammonia”

I.N. Mihailescu, **E. György**, R. Alexandrescu, A. Luches, A. Perrone, C. Ghica, J. Werckmann, I. Cojocaru, V. Chumash

Thin Solid Films, 323(1,2) (1998) 72-78

[9] “Carbon nitride films deposited by reactive laser ablation”

M. L. De Giorgi, G. Leggieri, A. Luches, M. Martino, A. Perrone, A. Zocco, G. Barucca, G. Majni, **E. György**, I. N. Mihailescu, M. Popescu

Applied Surface Science, 127-129, (1998) 481-485

[10] “About the nature of particulates covering the surface of thin films obtained by reactive pulsed laser deposition”

I. N. Mihailescu, V. S. Teodorescu, **E. György**, A. Luches, A. Perrone, M. Martino

Journal of Physics D: Applied Physics, 31, (1998) 2236-2240

[11] “Crystalline structure of very hard tungsten carbide thin films obtained by reactive pulsed laser deposition”

I. N. Mihailescu, **E. György**, G. Marin, M. Popescu, V. S. Teodorescu, J. Van Landuyt, C. Grivas, A. Hadgiapostol

Journal of Vacuum Science and Technology A, 17(1) (1999) 249-255

[12] “Characteristic features of the laser radiation-target interactions during reactive pulsed laser ablation of Si targets in ammonia”,

I. N. Mihailescu, **E. György**, V. S. Teodorescu, Gy. Steinbrecker, J. Neamtu, A. Perrone, A. Luches

Journal of Applied Physics, 86(12), (1999) 7123-7128

[13] “Sr-ferrite thin films grown on sapphire by pulsed laser deposition”

M. E. Koleva, S. Zotova, P. A. Atanasov, R. I. Tomov, C. Ristoscu, V. Nelea, C. Chiritescu, **E. György**, C. Ghica, I. N. Mihailescu

Applied Surface Science, 168 (2000) 108-113

[14] “Conduction via deep levels in Si p-n junctions prepared by direct laser implantation of phosphorus”

Simeonov, E. Kafedjiiska, A. Szekeres, C. Ristoscu, **E. György**, I.N. Mihailescu, G. Mikhailova

Journal of Optoelectronics and Advanced Materials 2 (2000) 99-102

[15] “About the possible diminution of the  $sp^3$  C presence along with the increase of the nitrogen enclosure in the  $CN_x$  thin films produced by reactive pulsed laser”

**E. György**, I. N. Mihailescu, M. Baleva, E. P. Trifonova, M. Abrashev, V. Darakchieva, A. Zocco, A. Perrone

Journal of Materials Science, 36(8) (2001) 1951-1957

[16] “Transmission electron microscopy study of silicon nitride amorphous films obtained by Reactive Pulsed Laser Deposition ”,

V. S. Teodorescu, L. C. Nistor, M. Popescu, I. N. Mihailescu, **E. György**, J. Van Landuyt, A. Perrone

[17] "Correlation between hardness and structure of the carbon-nitride thin films obtained by Reactive Pulsed Laser Deposition"

**E. György**, V. Nelea, I. N. Mihailescu, A. Perrone, H. Pelletier, A. Cornet, S. Ganatsios, J. Werckmann

Thin Solid Films 388(1-2) (2001) 93

[18] "Role of laser pulse duration and gas pressure in deposition of AlN thin films"

**E. György**, C. Ristoscu, I. N. Mihailescu, A. Klini, N. Vainos, C. Fotakis, C. Ghica, G. Scheimbrecker, J. Faerber

Journal of Applied Physics 90(1) (2001) 456

[19] "Trap-assisted tunneling at temperatures near 77 K in laser annealed Si n<sup>+</sup>-p junctions"

S. S. Simeonov, E. Kafedjiiska, A. Szekeres, C. Ristoscu, **E. György**, I. N. Mihailescu

Journal of Applied Physics 90(2) (2001) 860

[20] "Surface nitridation of titanium by pulsed Nd:YAG laser irradiation"

**E. György**, A. Pérez del Pino, P. Serra, J. L. Morenza

Applied Surface Science, 186 (2002) 130-134

[21] "Single-pulse Nd:YAG laser irradiation of titanium: influence of laser intensity on surface morphology"

**E. György**, I. N. Mihailescu, P. Serra, A. Pérez del Pino, J. L. Morenza

Surface Coatings and Technology, 154 (2002) 63-67

[22] "Crown-like structure development on titanium exposed to multipulse Nd:YAG laser irradiation"

**E. György**, I. N. Mihailescu, A. Pérez del Pino, P. Serra, J. L. Morenza

Applied Physics A: Materials Science and Processing, 74 (2002) 755-759

[23] "Growth of surface structures in Ti through Nd:YAG laser irradiation in vacuum"

**E. György**, A. Pérez del Pino, P. Serra, J. L. Morenza

Applied Surface Science, 197-198 (2002) 851-855

[24] "Particulates-free Ta thin films obtained by pulsed laser deposition: the role of a second laser in the laser-induced plasma heating"

**E. György**, I. N. Mihailescu, M. Kompitsas, A. Giannoudakos

Applied Surface Science, 195 (2002) 270-276

[25] "Correlation between the chemical bonding and the physical properties of the CN<sub>x</sub> films pulsed laser deposited from C targets in low pressure N<sub>2</sub>"

**E. György**, I. N. Mihailescu, M. Baleva, M. Abrashev, E. P. Trifonova, A. Szekeres, A.

Perrone

Materials Science and Engineering B, 97 (2003) 251-257

[26] "Particulates-free thin films deposited by a synchronized two-laser system"

M. Kompitsas, A. Giannoudakos, **E. György**, I. N. Mihailescu

Photonik, 35(2) (2003) 48-51

[27] "Micro-columns development on titanium by multi-pulse laser irradiation in nitrogen"

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