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| European  curriculum vitae  11 |



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| PERSONAL INFORMATION |  |  |
| SURNAME / First Name | Georgiana Alina / Ilie |  |
| Address | Intrarea Ronda Street, No. 3, 2nd sector, Bucharest 024107 (Romania) |  |
| Phone | +40 21 457 45 50 / 2041 |  |
| Fax | - |  |
| E-mail | Ilie.georgiana@inflpr.ro |  |
| Nationality | Romanian |  |
| Birth date / Place | 29.01.1989 / Bucharest, Romania |  |

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| **WORK EXPERIENCE** |  | |
| **•** Dates | 06.01.2014 → Present |  |
| **•** Name and address of employer | National Institute for lasers, Plasma Physics and Radiation (INFLPR), Atomiştilor Street No. 409, Bucharest-Magurele, ROMANIA. |  |
| Occupation / Position held | Research Assistant |  |
| Main activities and responsibilities | Scientific Research in Laboratory of Laser Induced Photochemistry (LLP), Lasers Department (INFLPR). Raman spectroscopy applications within CETAL. Nanoparticle synthesis by laser pyrolysis within LLP laboratory |  |
|  |  |  |
| **•** Dates | 1.11.2015 → 10.12.2015 |  |
| **•** Name and address of employer | Department of geology and Earth Sciences, Ecole Normale Supérieure, Raphaël Dubois Street, 69622, Lyon, France. |  |
| Occupation / Position held | Research Internship student |  |
| Main activities and responsibilities | Theoretical studies on the Raman spectrum of diamond. Python scripts for data processing of molecular dynamics files from Abinit. |  |
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| • Dates  • Name and address of employer  Occupation / Position held  Main activities and responsibilities | 17.02.2014 → 17.05.2014  Department of geology and Earth Sciences, Ecole Normale Supérieure, Raphaël Dubois Street, 69622, Lyon, France.  Research Internship student  Ab initio and Molecular Dynamics calculations and simulations in Abinit, Python scripts for data analysis. Calculations and measurements of Raman Spectrum. Experimental and theoretical studies on the Raman spectrum variation of diamond at different temperatures. |  |

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| **EDUCATION AND TRAINING** |  |  |
| • Dates | 2014 → present |  |
| • Name of organization providing education and training | Doctoral School of Optics, Spectroscopy, Plasma and Lasers, University of Bucharest, Faculty of Physics |  |
| • Title of qualification awarded | PhD student |  |
| Specialization  Thesis title: | Research, Raman Spectroscopy, Nanoparticle synthesis by laser pyrolysis, Data Mining applied in spectroscopy, Ab initio modeling in Abinit, Python programming.  TiO2 Nanoparticles with Photoactive Properties: Laser Pyrolysis Synthesis and Hybrid Characterization by PCA-Raman versus Associated Techniques |  |
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| • Dates | 2012 → 2014 |  |
| • Name of organization providing education and training | Techniques of Analysis, Modeling and Simulation, Bioinformatics and Imaging of complex systems, Polytechnic University of Bucharest, Faculty of Electronics and Telecommunications |  |
| • Title of qualification awarded | Master in computer science and information technology |  |
| Main subject | Studies and Ab Initio Calculations of the Raman Spectrum |  |
| • Dates  • Name of organization providing education and training  • Title of qualification awarded  Main subject | 2008 → 2012  Polytechnic University Of Bucharest. Faculty of Applied Sciences.  Licensed engineer  Tension studies in polymers using optical and thermal techniques |  |

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| **PERSONAL SKILLS AND COMPETENCES** | |  | |
| *•* Mother tongue  *•* Other languages | Romanian  English, French | |  |
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| *•* Social skills and competences | Team spirit. Ability to adapt and assimilate new information, communication skills, committed and involved in group project activities. | |  |
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| *•* Organizational skills and competences | Organization and training a team. Ability to make decisions under pressure and meet deadlines, punctuality. Analytical and self-improvement capacity. | |  |
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| *•* Technical skills and competences | Numerical modelling, Matlab, Python, Origin. | |  |
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| *•* Other skills and competences | Psycho- Pedagogical Module (level 1), Education, Pedagogy, Psychology and didactics of the subject, computer assisted instruction, class management. | |  |

**LIST OF PUBLICATIONS**

1. **Ilie, A.G**., Scarisoreanu, M., Dutu, E., Dumitrache, F., Banici, A.-M., Fleaca, C.T., Vasile, E., Mihailescu, I., *Study of phase development and thermal stability in as synthesized TiO2 nanoparticles by laser pyrolysis: ethylene uptake and oxygen enrichment,* (2018) Applied Surface Science, 427, pp. 798-806. DOI: 10.1016/j.apsusc.2017.08.041
2. Morjan, I.P., Morjan, I., **Ilie, A**., Scarisoreanu, M., Gavrila, L., Dumitrache, F., Vasile, E., Turcu, R., Miron, C. *The study of nitrogen inclusion in carbon nanotubes obtained by catalytic laser-induced chemical vapour deposition (C-LCVD)*, (2017) Applied Surface Science, 425, pp. 440-447. DOI: 10.1016/j.apsusc.2017.06.296
3. Gavrila-Florescu, L., Dumitrache, F., Balas, M., Fleaca, C.T., Scarisoreanu, M., Morjan, I.P., Dutu, E., **Ilie, A**., Banici, A.-M., Locovei, C., Prodan, G. *Synthesis of Fe-based core@ZnO shell nanopowders by laser pyrolysis for biomedical applications,* (2017) Applied Physics A: Materials Science and Processing, 123 (12), art. no. 802, DOI: 10.1007/s00339-017-1416-1
4. Fleaca, C.T., Dumitrache, F., Sandu, I., Dutu, E., **Ilie, A**., Banici, A.-M., Vasile, E., Vlaic, C., Bund, A., Prodan, G., *Laser pyrolysis synthesis of Sn–Fe–N@polycarbosilazane nanocomposites, characterization and evaluation as energy storage materials,* (2017) Applied Physics A: Materials Science and Processing, 123 (11), art. no. 695, DOI: 10.1007/s00339-017-1300-z
5. Scarisoreanu, M., Fleaca, C., Morjan, I., Niculescu, A.-M., Luculescu, C., Dutu, E., **Ilie, A**., Morjan, I., Florescu, L.G., Vasile, E., Fort, C.I., *High photoactive TiO2/SnO2 nanocomposites prepared by laser pyrolysis*, (2017) Applied Surface Science, 418, pp. 491-498. DOI: 10.1016/j.apsusc.2016.12.122
6. **Ilie, A.G.**, Scarisoareanu, M., Morjan, I., Dutu, E., Badiceanu, M., Mihailescu, I., *Principal component analysis of Raman spectra for TiO2 nanoparticle characterization,* (2017) Applied Surface Science, 417, pp. 93-103. DOI: 10.1016/j.apsusc.2017.01.193
7. Avotina, L., Marcu, A., Lungu, M., Stancalie, A., Grigorescu, C., **Ilie, A.G**., Porosnicu, C., Mihai, L., Sporea, D., Lungu, C., Somacescu, S., Kizane, G., Savastru, D., Antohe, S., *Power density influence on laser-induced graphite structural modifications*, (2016) Digest Journal of Nanomaterials and Biostructures, 11 (3), pp. 973-981.
8. Fleaca, C.T., Dumitrache, F., Morjan, I., Niculescu, A.-M., Sandu, I., **Ilie, A**., Stamatin, I., Iordache, A., Vasile, E., Prodan, G., *Synthesis and characterization of polyaniline-Fe@C magnetic nanocomposite powder,* (2016) Applied Surface Science, 374, pp. 213-221. DOI: 10.1016/j.apsusc.2015.11.043
9. Fleaca, C., Dumitrache, F., Duu, E., Luculescu, C., Niculescu, A.-M., **Ilie, A**., Vasile, E., *One step synthesis of tin-carbon core-shell nanoparticles using laser pyrolysis technique*, (2016) UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 78 (2), pp. 43-56.
10. Avotina, L., Marcu, A., Porosnicu, C., Lungu, M., Stancalie, A., **Ilie, A.G.**, Ganea, P.C., Savastru, D., Kalnacs, J., Lungu, C.P., Kizane, G., Antohe, S., *Multi-wavelength laser irradiation of Be-C-W coatings*, (2016) Digest Journal of Nanomaterials and Biostructures, 11 (1), pp. 293-302.
11. **Ilie, A.G.,** Mihailescu, M., Gabor, R.A., Curcan, O., Nicolae, C.-A., *Polariscopic and interferometric measurements of the mechanical stress,* (2012) Proceedings of SPIE - The International Society for Optical Engineering, 8411, art. no. 84110M, . DOI: 10.1117/12.966395
12. Mihailescu, M., **Ilie, A.G**., Costescu, J., Nedelcu, O.T., *High-speed phenomena visualization using digital holographic microscopy*, (2012) Proceedings of SPIE - The International Society for Optical Engineering, 8430, art. no. 84301F, DOI: 10.1117/12.922740

**Contributed talks**

1. **Ilie A. G**; Scarisoreanu, E; Mihailescu, I;, “*Principal Component Analysis of Raman spectra for Nanomaterial Evaluation*”, TIM 18 Physics Conference, 24 - 26 May 2018, Timisoara, Romania.
2. **Ilie A. G**; Scarisoreanu, M; Dutu, E; Mihailescu, I;, "*TiO2 Nanoparticle Generation by Laser Pyrolysis: Raman Spectra Analysis*", ROCAM-2017, 10-14 July 2017, Bucharest , Romania, S3, Abstract code: 1156, Nr.crt. 990
3. **Ilie A. G.**, R. A. Gabor, O. Curcan, C. A. Nicolae, M. Mihailescu, “*Thermo-Mechanical Investigations of Polymeric Material used for Holographic Printing*”, SISOM 2012 and Symposium of Acoustics, 30 - 31 May 2012, Bucharest, Romania.