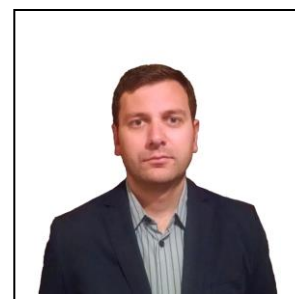




**Europass  
Curriculum Vitae**



**Personal information**

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Nationality Romanian  
Date of birth 30/01/1983  
Gender Male

**Research interests** laser scanning microscopy, scanning probe microscopy, photonics, biophotonics, optics, biomedical engineering, nanoscopy, image acquisition, image processing, computer vision, image fusion, image understanding, algorithm development and optimization, sample preparation, image metrology, applied physics, cellular and molecular biology, advanced materials.

**WORK EXPERIENCE**

Year(s) 2015 →(ongoing)  
Occupation or position held Director/Coordinator for research grants funded under national and EU competitions  
Name and address of employer Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest

Year(s) 2012 →(ongoing)  
Occupation or position held Scientific Researcher  
Name and address of employer Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest

Year(s) 2013  
Occupation or position held SCIEX Research Fellow  
Name of employer Light Microscopy and Screening Center, Swiss Federal Institute of Technology (ETH Zurich)

Year(s) 2007 – 2011  
Occupation or position held Research Assistant  
Name of employer Center for Microscopy-Microanalysis and Information Processing, University

Politehnica Bucharest

Year(s) 2003 – 2007  
Occupation or position held Undergraduate Research Intern  
Center for Microscopy-Microanalysis and Information Processing, University  
Name of employer Politehnica Bucharest

Year(s) 2005 – 2006  
Occupation or position held IT Consultant  
Name and address of employer WING Computer Group

## **EDUCATION AND TRAINING**

Dates 1998-2002  
Name and type of organisation providing education and training “Spiru Haret” National College (High-School)  
Specialization Informatics  
Title gained Assistant Analyst Programmer

Dates 2002 – 2007  
Title of qualification awarded Diplome Engineer  
Domain, Specialization Applied electronics, Information Engineering  
Name and type of organisation providing education and training Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest.

Dates 2007 – 2011  
Title of qualification awarded PhD in Electronics and Telecommunications  
Title of thesis Image Processing and Computer Vision Techniques for Enhancing the Visualization of Confocal Scanning Laser Microscopy (CSLM) Data  
Defense committee: Prof. Alberto Diaspro (Italian Institute of Technology), Prof. Genaro Saavedra (University of Valencia), Prof. Paul Schiopu (University Politehnica of Bucharest)  
Name and type of organisation providing education and training Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest.

## OTHER ACADEMIC DEGREES

Dates	2022
Title of qualification awarded	Habilitation in Physics
Title of thesis	Advances in Medicine, Biology and Materials Science using Methods based on Non-conventional Microscopy Techniques
Defense committee:	Prof. Zeev Zalevsky (Bar-Ilan University), Prof. Giuseppe Chiricco (University of Milano-Bicocca University), Prof. Cristina Stan (University Politehnica of Bucharest)
Name and type of organisation	Doctoral School of Applied Sciences, University Politehnica of Bucharest

## PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

Program/Project	Duration
<i>*budget provided for projects implemented as project director/coordinator</i>	
<b>HORIZON-HLTH-2023-TOOL-05-05 Id. 101137466:</b> Real-time biomarker detection systems for rapid medical decision-making in cancer and cardiac diseases (REALCARE) <b>Team member/Task Manager</b>	2023-2028
<b>RO-NO-2019-0601:</b> Understanding Membrane Dynamics and their Implications for Cancer with Correlative Optical Nanoscopy and Artificial Intelligence (MEDYCONAI) – <b>Project Coordinator</b> (in collaboration with Partner Leader Prof. Harald A . Stenmark, Oslo University Hospital) <b>Total project value: 1,633,450 EUR</b>	2021-2023
<b>PN-III-P1-1.1-TE-2019-1339:</b> Augmenting Micro- and Nanoscale Optical Imaging Techniques with Generative Adversarial Networks (OPTIGAN) – <b>Project Director</b> <b>Total project value: 89,289 EUR</b>	2021-2022
<b>PN-III-P2-2.1-PED-2019-1666:</b> Method for fast and precise diagnostic of gastric cancers based on non-linear optical microscopy and Deep Learning (GASTRODEEEP) – <b>Project Coordinator</b> (in collaboration with Partner Leader Prof. Mariana Costache, Carol Davila University of Medicine and Pharmacy) <b>Total project value: 124,041 EUR</b>	2020-2022
<b>PN-III-P2-2.1-PED-2019-2386:</b> Development of a nanoscale read/write platform for photonic crystals and waveguides for computations optics (INTEGRAOPTIC), <b>Research Team Member</b>	2020-2022
<b>PN-III-P1-1.1-TE-2019-1756:</b> Integration of pixel-wise and whole image classification of second harmonic generation microscopy datasets for thyroid pathology (SHGTHYPATH),	2020-2022

<b>Research Team Member</b>	
<p><b>Project funded by H2020 ATTRACT's competition for breakthrough technology concepts:</b> Higher-harmonic Generation Microscopy Beyond the Diffraction Barrier based on Re-scan Strategies for Optical Data Acquisition (HARMOPLUS)  <b>–Project Coordinator</b> (in collaboration with Partner Leader Prof. Erik Manders, Confocal.nl)  <b>Total project value: 100,000 EUR</b></p>	2019-2020
<p><b>Project funded by H2020 ATTRACT's competition for breakthrough technology concepts:</b> A novel approach for near-field optical microscopy based on tip-enhanced fluorescence via plasmon resonance energy transfer (TEFPLASNOM)  <b>–Project Coordinator</b> (in collaboration with Partner Leader Prof. Loredana Latterini, University of Perugia)  <b>Total project value: 100,000 EUR</b></p>	2019-2020
<p><b>Project funded by the Bureau of International Co-operation of the Chinese Academy of Sciences:</b> Biological Near - field fluorescence microscopic imaging system with functional nanomaterials  <b>-Partner Team Leader</b> (in collaboration with Principal Investigator Assoc. Prof. Fang Yang, Ningbo Institute of Material Technology &amp; Engineering)</p>	2020-2021
<p><b>PN-III-P1-1.1-TE-2016-2147:</b> Correlative optical imaging in the far-field and near-field regimes: technical developments and applications (CORIMAG), <b>Project Director</b>  <b>Total project value: 96,700 EUR</b></p>	2018-2020
<p><b>PN-III-P1-1.1-TE-2016-2147:</b> Label-free quantitative microscopy based on second harmonic generation at nanoscale (NANO-SHG), <b>Research Team member</b></p>	2018-2020
<p><b>PN-III-P3-3.1-PM-RO-CN-2018-0177:</b> Novel Optical Imaging Approaches for the In-depth Understanding of Advanced Nanostructured Materials and their Interaction with Biological Species (NANOMATBIOIMAGE),  <b>Project Director</b> ( in collaboration with Co- Principal Investigator Dr. Fang Yang, Ningbo Institute of Material Technology &amp; Engineering, China)  <b>Total project value: 10,917 EUR</b></p>	2018-2019
<p><b>CN: Guangxi Scientific Research And Technology Development Plan:</b> Exploiting the application of single molecule imaging technology in researches of enzyme engineering, <b>Partner Team Leader</b> (in collaboration with Prof. Shaomin Yan, Project Director on behalf of Guangxi Academy of Sciences in Nanning, China)</p>	2017-2020
<p><b>PN-III-P2-2.1-PED-2016:</b> An experimental machine intelligence framework for the automated differentiation of healthy, dysplastic and malignant tissues based on multiphoton microscopy datasets (MICAND)  <b>Project Coordinator</b> (in collaboration with Prof. Mariana Costache, Partner Leader on behalf of “Carol Davila” University of Medicine and Pharmacy in Bucharest)  <b>Total project value: 131,171 EUR</b></p>	2017-2018
<p><b>PN-III-P2-2.1-PED-2016:</b> QUANTITATIVE NANOSCOPY FOR THE CHARACTERIZATION OF BIOLOGICAL TISSUES (Q-NANOBIOT). <b>Research team member</b></p>	2017-2018

<b>PN-III-P2-2.1-PED-2016:</b> HOLOGRAPHIC ELEMENTS FABRICATED BY MEANS OF TWO PHOTON POLYMERIZATION FOR A DEMONSTRATIVE OPTICAL COMMUNICATIONS MODULE. <b>Research team member</b>	2017-2018
<b>FRAMEWORK FOR BILATERAL SCIENTIFIC COOPERATION ROMANIA – CHINA:</b> INVESTIGATIONS ON THE FUNCTION AND MICRO-STRUCTURE OF THE CELLULASE SECRETION SYSTEM BY HIGH-RESOLUTION IMAGING TECHNIQUES (CESESYS) <b>Project Director</b> (in collaboration with Co-Principal Investigator Dr. Guang Wu from Guangxi Academy of Sciences in Nanning) <b>Total project value: 11,170 EUR</b>	2016-2017
<b>PN-II-RU-TE-2014-4-1803:</b> CORRELATION AND INTEGRATION OF MICROSCOPY AND NANOSCOPY DATA BY ADVANCED COMPUTER VISION METHODS (MICRONANO), <b>-Project Director</b> <b>Total project value: 123,425 EUR</b>	2015-2017
<b>POSDRU/159/1.5/S/137390/</b> POST-DOCTORAL RESEARCH FELLOWSHIP: COMPUTER VISION TECHNIQUES FOR AUTOMATED ANALYSIS AND CORRELATION OF SCANNING LASER AND SCANNING PROBE MICROSCOPY DATA (COVIAC), <b>-PRINCIPAL INVESTIGATOR, (Excellence Award)</b>	2014-2015
<b>CH-SCIEX/</b> POST-DOCTORAL RESEARCH FELLOWSHIP: REGISTRATION AND FUSION OF HIGH RESOLUTION IMAGING DATA (IMPLEMENTED AT ETH ZURICH), <b>-PRINCIPAL INVESTIGATOR</b> <b>Total project value: 32,495 EUR</b>	2013
<b>PN-II-PT-PCCA/</b> NEW METHODS AND INVESTIGATIONS PROTOCOLS FOR THE EARLY DIAGNOSIS, EFFICIENT SCREENING, PROGNOSTIC AND THERAPY OF NON-MELANOMA SKIN CANCERS BASED ON EXISTING AND NOVEL MICRO & NANO OPTICAL TOOLS, <b>- Research team member</b>	2012-2016
<b>EU-CORDIS-FP7/</b> REAL TIME LABEL FREE NANOSCOPY USING INFRA RED ABSORPTION (LANIR). <b>Research team member</b>	2012-2015
<b>PN-II-PT-PCCA/</b> INNOVATIVE METHOD AND SYSTEM FOR THE DETECTION OF DRUG EVIDENCE BY PLASMA-LASER ASSISTED MASS SPECTROSCOPY. <b>Research team member</b>	2012-2016
<b>EU-CORDIS-FP7/</b> ELECTRICALLY MODIFIED BIOMATERIALS SURFACE: FROM ATOMS TO APPLICATIONS, GRANT AGREEMENT ( <i>BIOELECTRICSURFACE</i> ). <b>Research team member</b>	2008-2011
BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-SLOVAKIA. <b>Research team member</b>	2011-2012
BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-TURKEY. <b>Research team member</b>	2010-2011
BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-INDIA. <b>Research team member</b>	2007-2009

<b>RO-PNII-IDEI/ DEVELOPMENTS OF NEW INVESTIGATION TECHNIQUES IN SCANNING OPTICAL MICROSCOPY AND THEIR APPLICATIONS. Research team member</b>	2009-2011
<b>PNII/ STUDIES REGARDING INTERACTION MECHANISMS BETWEEN LASER AND RADIOFREQUENCY RADIATION WITH SUPERIOR AERODIGESTIVE TISSUES AND THE DEVELOPMENT OF THERAPEUTICAL PROTOCOLS. Research team member</b>	2007-2010
<b>PNII/ STUDIES OF MODIFICATIONS INTRODUCED IN ZIRCONIA, SPINEL AND SiC BY IONIC IMPLANTATION AND THERMAL TREATMENTS BY USING IBA AND OTHER ADVANCED TECHNIQUES. Research team member</b>	2007-2010
<b>PNII/ IMPACT OF ENVIRONMENTAL FACTORS TO THE FORMATION DYNAMICS AND STRUCTURAL BEHAVIOR OF TEMPORARY TEETH. Research team member</b>	2007-2010
<b>RO-CEEX/ ADVANCED TECHNOLOGIES REGARDING MANUFACTURING POSIBILITIES OF SUBMICRONIC ELEMENTS BY LITOGRAPHIC METHODS (SUBLITO). Research team member</b>	2006-2008
<b>RO-CERES/ EXPERIMENTAL MODEL OF EARLY DIAGNOSIS OF ARTWORK DAMAGE BY LIF. Research team member</b>	2004-2006
<b>RO-RELANSIN/ INTEGRATED SECURITY SISTEM FOR DIFFERENT MILITARY OBJECTIVES. Research team member</b>	2004-2006

#### **PARTICIPATION IN EU COST ACTIONS**

CA15124 A NEW NETWORK OF EUROPEAN BIOIMAGE ANALYSTS TO ADVANCE LIFE SCIENCE IMAGING (NEUBIAS) – <b>MANAGEMENT COMMITTEE MEMBER; ITC Conference Grants Coordinator</b>	2016-2020
CA16124 BRILLOUIN LIGHT SCATTERING MICROSPECTROSCOPY FOR BIOLOGICAL AND BIOMEDICAL RESEARCH AND APPLICATIONS (BIOBRILLOUIN)” – <b>MANAGEMENT COMMITTEE MEMBER</b>	2017-2021
CA19118 - High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications (EsSENce) - <b>MANAGEMENT COMMITTEE MEMBER; STSM Programme Coordinator, Grant Awarding Coordinator, Workgroup 6 (Characterization) Co-Leader</b>	2020-2024

#### **EDITORIAL APPOINTMENTS:**

- Senior Editor, IEEE Photonics, IEEE (2021-ongoing)
- Associate Editor, Frontiers in Photonics, Frontiers (2021-ongoing)
- Topic Editor: Materials, MDPI (2020-ongoing)

- Review Editor: ‘Nanobiotechnology’ section of *Frontiers in Bioengineering and Biotechnology* (2015-ongoing)
- Guest Associate Editor at *Materials* (Special Issue: “Artificial Intelligence for Advanced Materials Research”), 2020 -
- Guest Associate editor at the Biomedical Physics Section of *Frontiers in Physics* and *Frontiers in Physiology* (Research Topic: “Advances in Label Free Tissue Imaging with Laser Scanning Microscopy Techniques”), 2019-2020
- Guest Associate Editor at the Nanoscience Section of *Frontiers in Chemistry* (Research Topic: “Recent Trends in Optical and Mechanical Characterization of Nanomaterials”), 2019-2020
- Guest Associate Editor at *Scanning* (Special Issue: “Novel Scanning Characterization Approaches for the Accurate Understanding and Successful Treatment of Oral and Maxillofacial Pathologies”), 2019-2020

#### REVIEWED MANUSCRIPTS FOR:

Biomedical Optics Express, Optics Letters, Journal of Biophotonics, Scientific Reports, Measurement, Data in Brief, Artificial Intelligence in Medicine, OSA Continuum, Computer Methods and Programs in Biomedicine, IEEE Transactions on Systems, Man and Cybernetics: Systems, Sensors, Electronics, Microscopy Research and Technique, Review of Scientific Instruments, IET Computer Vision, IET Image Processing, Frontiers in Molecular Biosciences, Frontiers in Chemistry, Frontiers in Cellular Neuroscience, Frontiers in Bioengineering and Biotechnology Frontiers in Physics, PlosOne, Optik, Materials Letters, Journal of Gastroenterology and Hepatology, ACS Photonics, ACS Sensors, IEEE Photonics, Advanced Materials, Small Methods, Microbiology Spectrum

#### AWARDS:

- Presentation Award of the *The Spanish-Portuguese Meeting for Advanced Optical Microscopy, Bilbao, Spain, 5-7 October, 2016*: Multimodal Imaging of nanostructured materials and biological samples in the far-field and near-field Regimes, S.G. Stanciu, D.E. Tranca, C. Stoichita, R. Hristu, L. Pastorino, J.M. Bueno, C. Ruggiero, A. Antipov, G.A. Stanciu.
- Best Poster Presenter Award of the EuroNanoForum EuroNanoForum 2015, Riga, Latvia, 10-12th of June, 2015: Combined Multimodal Imaging at Micro- and Nanoscale Using Complementary Contrast Mechanisms, S.G. Stanciu, C. Stoichita, R. Hristu, D.E. Tranca and G.A. Stanciu
- European Social Fund Project POSDRU/159/1.5/S/137390/: Award for exceeding the fellowship’s objectives (conference presentations), Award for exceeding the fellowship’s objectives (journal publications), Excellence Award (highest cumulated publication impact factor in the postdoc target group),
- >20 PRECISI Awards of the Romanian Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) for authorship of publications in top-tier journals (1<sup>st</sup> and 2<sup>nd</sup> quartile journals)

#### INVOLVEMENT IN ORGANIZATION/SUPPORT OF INTERNATIONAL CONFERENCES:

- Member of the Organizing Committee for the 2012 Workshop on Super-resolution and Life Sciences, 3-6 October 2012, Brasov, Romania
- Member of the Organizing Committee for the 2018 International Conference on Transparent Optical Networks, 1-5 July 2018, Bucharest, Romania
- Inclusiveness Target Countries Conference Grant Coordinator for the CA15124 NEUBIAS Cost Action (2018-2020).
- Co-Chair of Session 3.8 – Special Technical Session – Nanostructured devices and smart materials for biophotonics applications, IEEE MELECON 2022, The 21st IEEE Mediterranean Electrotechnical Conference Palermo, Italy, 14-16 June 2022
- Member of the Organizing Committee for the 2023 International Conference on Transparent Optical Networks, 2-6 July 2023, Bucharest, Romania

## PUBLICATIONS AND CONFERENCE PARTICIPATIONS

### PUBLICATIONS IN WEB-OF-SCIENCE (WOS) AND/OR SCOPUS INDEXED JOURNALS

(main author role is highlighted by **bold underline** font)

#### 2024

1. Kusnetz, B., Belhassen, J., Tranca, D. E., **Stanciu, S. G.**, Anton, S. R., Zalevsky, Z., Stanciu, G.A. & Karsenty, A. (2024). Generic arrays of surface-positioned and shallow-buried gold multi-shapes as reference samples to benchmark near-field microscopes. Part 1: Applications in s-SNOM depth imaging. *Results in Physics*, 107318.

#### 2023

2. Roadmap on Label-Free Super-Resolution Imaging, V. N. Astratov, Y. B. Sahel, Y. C. Eldar, L. Huang, A. Ozcan, N. Zheludev, J. Zhao, Z. Burns, Z. Liu, E. Narimanov, N. Goswami, G. Popescu, E. Pfitzner, P. Kukura, Y.-T. Hsiao, C.-Lung Hsieh, B. Abbey, A. Diaspro, A. LeGratiet, P. Bianchini, N. T. Shaked, B. Simon, N. Verrier, M. Debailleul, O. Haeberlé, S. Wang, M. Liu, Y. Bai, J.-X. Cheng, B. S. Kariman, K. Fujita, M. Sinvani, Z. Zalevsky, X. Li, G.-J. Huang, S.-W. Chu, O. Tzang, D. Hershkovitz, O. Cheshnovsky, M. J. Huttunen, **S. G. Stanciu**, V. N. Smolyaninova, I. I. Smolyaninov, U. Leonhardt, S. Sahebdivan, Z. Wang, B., Luk'yanchuk, L. Wu, A.V. Maslov, B. Jin, C. R. Simovski, S. Perrin, P. Montgomery, and S. Lecler, 2023, *Laser & Photonics Reviews*, 17 (12), 2200029, DOI: 10.1002/lpor.202200029 (**article featured on the front cover**)
3. Investigations on the topography and micro-mechanical properties of polyvinyl alcohol thin-film composites reinforced with hardwood biocarbon particles, M. Zouari, **S.G. Stanciu**, J. Jakes, L. Marrot, E. Fiorentis, G.A. Stanciu, D. B. DeVallance, 2023, *Journal of Materials Research and Technology*, 27 (6), 5533-5540



4. Anton, S. R., Tranca, D. E., Stanciu, S. G., Hristu, R., Banica, C. K., Vasile, E. Hu, Z., Fu, E., & Stanciu, G. A. (2023). Characterization of Nanoporous Copper Using Scanning Probe Techniques. *Coatings*, 13(11), 1908.
5. DeepGT: Deep learning-based quantification of nanosized bioparticles in bright-field micrographs of Gires-Tournois biosensor, J. Kang, Y.J. Yoo, J.-H. Park, J. H. Ko, S. Kim, **S.G. Stanciu**, H.A. Stenmark, J. Lee, A. Al Mahmud, H.-G. Jeon, Y.M. Song, *Nano Today*, 52, 101968 (2023)
6. **Stanciu, S. G.**, König, K., Song, Y. M., Wolf, L., Charitidis, C. A., Bianchini, P., & Goetz, M. (2023). Toward next-generation endoscopes integrating biomimetic video systems, nonlinear optical microscopy, and deep learning. *Biophysics Reviews*, 4(2) (2023)
7. Fighting bacterial pathogens with carbon nanotubes: focused review of recent progress, Asaftei, M., Lucidi, M., Cirtoaje, C., Holban, A. M., Charitidis, C. A., Yang, F. Wu. A., Stanciu, G.A., Saglam, O., Lazar, V., Visca, P., **Stanciu, S.G.**, *RSC advances*, 13(29), 19682-19694 (2023).
8. Automated Detection of Corneal Edema with Deep Learning-assisted Second Harmonic Generation Microscopy, Anton, S.R., Martínez-Ojeda, R.M., Hristu, R., Stanciu, G.A., Toma, A., Banica, C.K., Fernández, E.J., Huttunen, M.J., Bueno, J.M. and **Stanciu, S.G.**, 2023.. *IEEE Journal of Selected Topics in Quantum Electronics*, vol. 29 (6), p.7201010
9. Nanoscale local modification of PMMA refractive index by tip-enhanced femtosecond pulsed laser irradiation, Tranca, D.E., **Stanciu, S.G.**, Hristu, R., Ionescu, A.M. and Stanciu, G.A., 2023.. *Applied Surface Science*, vol. 623, p.157014.
10. Magneto-mechanical Therapeutic Effects and associated Cell Death Pathways of magnetic nanocomposites with distinct geometries, Yao, C., Yang, F., Zhang, J., Yao, J., Cao, Y., Peng, H., **Stanciu, S.G.**, Charitidis, C.A. and Wu, A., 2023.. *Acta Biomaterialia*, vol. 161, pp. 238-249
11. Structural and Mechanical Properties of CrN Thin Films Deposited on Si Substrate by Using Magnetron Techniques, Tranca, D.E., Sobetskii, A., Hristu, R., Anton, S.R., Vasile, E., **Stanciu, S.G.**, Banica, C.K., Fiorentis, E., Constantinescu, D. and Stanciu, G.A., 2023. *Coatings*, 13(2), p.219.
12. Toward augmenting tip-enhanced nanoscopy with optically resolved scanning probe tips, Belhassen, J., Glass, S., Teblum, E., Stanciu, G.A., Tranca, D.E., Zalevsky, Z., **Stanciu, S.G.** and Karsenty, A., 2023. *Advanced Photonics Nexus*, 2(2), p.026002.

## 2022

13. Super-resolution re-scan second harmonic generation microscopy, **Stanciu, S.G.**, Hristu, R., Stanciu, G.A., Tranca, D.E., Eftimie, L., Dumitru, A., Costache, M., Stenmark, H.A., Manders, H., Cherian, A. Tark-Dame, M., Manders, E.M.M., 2022. *PNAS - Proceedings of the National Academy of Sciences*, 119(47), p.e2214662119.
14. “Double-punch” strategy against triple-negative breast cancer via a synergistic therapy of magneto-mechanical force enhancing NIR-II hypothermal ablation., Du, H., Yang, F., Yao, C., Lv, W., Peng,

H., **Stanciu, S.G.**, Stenmark, H.A., Song, Y.M., Jiang, B. and Wu, A., 2022. *Biomaterials*, 291, p.121868.

15. Multifunctional Modulation of High-Performance Zn<sub>x</sub>Fe<sub>3-x</sub>O<sub>4</sub> Nanoparticles by Precisely Tuning the Zinc Doping Content., Du, H., Yang, F., Yao, C., Zhong, Z., Jiang, P., **Stanciu, S.G.**, Peng, H., Hu, J., Jiang, B., Li, Z. and Lv, W., 2022. *Small*, 18(42), p.2201669.
16. Gires-Tournois immunoassay platform for label-free bright-field imaging and facile quantification of bioparticles, Y.J. Yoo, J.H. Ko, G.J. Lee, J. Kang, M. S. Kim, **S.G. Stanciu**, H.H. Jeong, D.H. Kim, Y.M. Song, *Advanced Materials*, 34 (21), 2110003 (2022) (**article featured on the front cover page**)
17. Eftimie, L.G., Glogojeanu, R.R., Tejaswee, A., Gheorghita, P., **Stanciu, S.G.**, Chirila, A., Stanciu, G.A., Paul, A. and Hristu, R., 2022. Differential diagnosis of thyroid nodule capsules using random forest guided selection of image features. *Scientific Reports*, 12(1), pp.1-13.
18. Hristu, R., **Stanciu, S.G.**, Dumitru, A., Eftimie, L.G., Paun, B., Tranca, D.E., Gheorghita, P., Costache, M. and Stanciu, G.A., 2022. PSHG-TISS: A collection of polarization-resolved second harmonic generation microscopy images of fixed tissues. *Scientific Data*, 9(1), pp.1-12.
19. Scattering-type Scanning Near-Field Optical Microscopy of Polymer-Coated Gold Nanoparticles. **S.G. Stanciu**, D.E. Tranca, G. Zampini, R. Hristu, G.A. Stanciu, X. Chen, M. Liu, H.A. Stenmark, L. Latterini. *ACS Omega*, 7, 11, pp. 11353-11362, (2022).
20. F. Yang, J. Yao, F. Zheng, H. Peng, S. Jiang, C. Yao, H. Du, B. Jiang, **S.G. Stanciu**, A. Wu. Guarding food safety with conventional and up-conversion near-infrared fluorescent sensors. *Journal of Advanced Research*, 41 (November 2022) 129-144 (2022)
21. R. Hristu, L.G. Eftimie, **S.G. Stanciu**, R.R. Glogojeanu, P. Gheorghita, G.A. Stanciu. Assessment of Extramammary Paget Disease by Two-Photon Microscopy. *Frontiers in Medicine*, 9, (2022).
22. X. Chen, Z. Yao, Z. Sun, **S.G. Stanciu**, D. N. Basov, R. Hillenbrand, M. Liu. "Rapid simulations of hyperspectral near-field images of three-dimensional heterogeneous surfaces–part II." *Optics Express* 30 (7), (2022).

**2021**

23. Hybrid Machine Learning for Scanning Near-field Optical Spectroscopy, X. Chen, Z. Yao, S. Xu, A.S. McLeod, S.N.G. Corder, Y. Zhao, M. Tsuneto, H.A. Bechtel, M.C. Martin, G. L. Carr, M.M. Fogler, **S.G. Stanciu**, D.N. Basov, M. Liu, *ACS Photonics*, 8(10), 2987–2996 (2021)
24. Rapid Simulations of Hyperspectral Near-field Images of Three-dimensional Heterogeneous Surfaces, X. Chen, Z. Yao, **S.G. Stanciu**, D. N. Basov, R. Hillenbrand, M. Liu, *Optics Express*, 29(24), 39648-39668 (2021)
25. The influence of hematoxylin and eosin staining on the quantitative analysis of second harmonic generation imaging of fixed tissue sections, Biomedical Optics Express, R. Hristu, **S.G. Stanciu**, B. Paun, I. Floroiu, A. Dumitru, M. Costache, G.A. Stanciu, *Biomedical Optics Express*, 12, 5829-5843 (2021)
26. Characterization of *Acinetobacter baumannii* filamentous cells by Re-scan confocal microscopy and complementary fluorometric approaches, M. Lucidi, R. Hristu, L. Nichele, G.A. Stanciu, P. Visca,

C.K.Banica, G. Cincotti, **S.G. Stanciu**, *IEEE Journal of Selected Topics in Quantum Electronics*, 27(5), 6801207 (2021)

2020

27. Magnetically switchable mechano-chemotherapy for enhancing the death of tumour cells by overcoming drug-resistance, C. Yao, F. Yang, L. Sun, Y. Ma, **S.G. Stanciu**, Z. Li, C. Liu, O. U. Akakuru, L. Xu, N. Hampp, Huanming Lu, A. Wu, *Nano Today*, 35, 100967 (2020)
28. Large-Area Virus Coated Ultra-Thin Colorimetric Sensors with a Highly Lossy Resonant Promoter for Enhanced Chromaticity, Y.J. Yoo, W-G. Kim, J.H. Ko, Y.J. Kim, Y. Lee, J.-M. Lee, **S.G. Stanciu**, J-W. Oh, Y.M. Song, *Advanced Science*, 7(18), 2000978, (2020) (**article featured on the inside cover**)
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