PERSONAL DETAILS

Address: 38A Mihail Kogalniceanu Str., vila 4, Tunari Ilfov, 077180
E-mail: cipi_sil@yahoo.com; Ciprian.iliescu@upb.ro
Phone: +40759343964
Citizenship: Romanian

EXECUTIVE SUMMARY

- **Expertise in:** bioengineering (more than 15 years), biophysics, microfluidics, micro & nanofabrication,
- **Current research directions:** Nanomedicine, Point of Care Testing, Transdermal Drug Delivery, electronic Skin (eSkin)
- **Lead and work on different projects related to** Bioengineering, MEMS, BioMEMS,
- 115 journal articles (100 in peer review journal) 40 invited, keynote, plenary talks or seminars,
- Publication in relevant journals such as: Science Translational Medicine, Biomaterials, Chemistry of Materials, Trends in Analytical Chemistry, Lab on a chip, Sensors and Actuators B: Chemical, Electrochemical Acta, Analytical Chemistry.
- **Member of Honor of the Academy of Romanian Scientists** (from June 2013)-www.aosr.ro
- **Nominated in the Stanford/Elsevier's Top 2% Scientist Ranking (2024,2023,2022, 2020)-** https://topresearcherslist.com/Home/Profile/947452
- **Member** of the **Romanian National Council for Attesting Titles, Diplomas and Certificates**- CNATDCU – Section: Chemical Engineering (2016-2018, 2020-2024)
- **Member of the "Editorial board":**
  - *IEEE Transaction on NanoBioscience* (Asoc. Editor from 2020);
  - *Micromachines* (from 2020),
  - *Informacije MIDEM-Journal of Microelectronics, Electronic Components and Materials –Slovenia* (from 2012);
  - Frontiers in Lab on a Chip Technologies- (Asoc Editor from 2022)
  - Annals of the Academy of Romanian Scientists (2021), Series on Science and Technology of Information (from 2009);
  - Journal of Experimental and Theoretical Analyses (from 2022),
  - Journal of Fluids /Hindawi (2013-2017);
  - Transactions on Fluid Mechanics/WSEAS (2013-2015).
- **Setup the IBN BioMEMS cleanroom (2003-2004) and Cleanroom Manager (2003-2017)**
- **Setup the "Micro- and Nanofluidic Lab" in IMT Bucharest (2010-2014) and "Scientific Director" of the lab**
- **Setup eBio-hub Research Center @ National University of Science and Technology POLITEHNICA Bucharest**
- **Guest Editor** of a Special Issue in "Micromachines"(2019)- "Nanoparticles on Microfluidic Platforms" (2020)- "Frontiers in Cellular and Infection Microbiology": "Point-of-Care Testing for Infectious and Foodborne Pathogens" (2020)
- **Referee reviewer** for 70 scientific journals: ACS Advanced Materials & Interfaces, Advances in High Energy Physics, AIP Advances, Analytical Chemistry, Analytical and Bioanalytical Chemistry, Analytical Methods (RSC),Applied Sciences (MDPI), Bioengineering (MDPI), Biofabrication, Biomicrofluidics, Biomedical Physics and Engineering Express, Biotechnology, BioTechniques, Cancers (MDPI), Chemica Oggi-Chemistry Today, Coatings (MDPI), Colloids and Surfaces A: Physicochemical and Engineering Aspects, Current Analytical Chemistry, Current Applied Physics, Current Drug Delivery, ECS Journal of Solid State Science and Technology, Electrophoresis, European J. Physics- Applied Physics, Expert Opinion On Drug Safety, Frontiers in Nutrition, Frontiers in Bioengineering and Biotechnology, IEEE Sensors, IEEE Transactions on NanoBioscience, Informacije MIDEM, Int. J. of Environmental Analytical Chemistry, Int. J. of Physical Sciences, Int. J. of Molecular Science, J. of Bioengineering, J. of Biological Engineering, J. of Electrochem. Soc., J. Electrical Engineering and Electronic Technology (JEEET), J. Electrostatics, J of Microelectromechanical Systems (JMEMS), J. of Fluids, J. Micromech. & Microeng., J. Nanoengineering & Nanosystems, J. Nanomaterials, J. Optoelectronics and Adv. Mat., J. Physics: Condensed Matter, J. Physics D: Applied Physics, J. Vacuum Science and Tech. A, J. Vacuum Science and Tech. B, J. od Visual Experiments (JOVE), Lab on a Chip, Microelectronic Engineering, Microsystem Technologies, Microfluidics & Nanofluidics, Micro & Nanosystems, Nature Communications, Polymers (MDPI), Proc. of the Institution of Mechanical Engineers-Journal of Nanoeng. & Nanosystems, RSC Advances, Scientific Reports (Nature), Sensors & Actuators A: Physical, Sensors & Actuators B: Chemical, Sensors Journal (MDPI), Sensors and Materials, Smart Materials Research, Thin Solid Films, Therapeutic Delivery, Thermal Science, Trends in

Analytical Chemistry, Water Research.

- **External reviewer (grant applications):**
  - The Innovation and Technology Commission, (Hong Kong),
  - QNRF (Qatar National Research Fund),
  - ASTAR (Singapore), National Science Center -OPUS founding scheme (Poland),
  - UEFISCDI (Romania),
  - Swiss Cancer League, German-Israeli Foundation,
  - Swiss National Science Foundation,
  - Graduate Women in Science (GWIS)
  - National Fellowship Program (NSF-USA)
- **Awards: „Stefan Odobleja" Award of Academy of Romanian Scientists in 2019** for the work Recent advances in microfluidics methods in cancer liquid biopsy", *Biomicrofluidics*, vol. 13, issue 4, art. no. 041503, 2019; **3 Best Paper Awards** for papers presented at international conferences;
- **Member** of the "Scientific Committee" and "Session Chair" at different conferences

Figures of merit @010/04/2025: (1) ISI Thomson: 3680 citations/143 documents, H-index: 36 (Researcher ID: JGP-7936-2023); (2) SCOPUS: 4220 citations/147 documents, H-index: 39 (Author ID: 8571916600) (3) Google Scholar: 6175 citations/190 documents, H-index: 46; Orcid ID: 0000-0001-7042-5248

PRESENT AND PREVIOUS APPOINTMENTS:

- **1.012023- present - "ERA Chair" and Director (from 1.06.2024) – eBio-hub Research Center in Bioengineering @ National University of Science and Technology POLITEHNICA Bucharest (eBio-hub.upb.ro)**
  – setup the Research Center in biomedical engineering
  - establish the research directions of the center
  - setup the PhD program in Bioengineering
  - Train PhD and Postdoc students
  - Grants:
  1. eBio-hub:chair of research center in biomedical engineering (PN-IV-P8-8.1-PRE-HE-ORG-2023-0054) 2023-2027 – 500 K€- support project
  2. eBio-hub:chair of research center in biomedical engineering (Horizon-242974-101087007) 2023-2027 2.500K€
- **1.05.2022-31.12.2022 "ERA Chair" in Nanomedicine- Regional Institute of Oncology Iasi, Romania**
  - Setup and lead the Nanomedicine Lab using a reputational EU funded program
- **01.04.2021- PhD supervisor- Faculty of Chemical Engineering and Biotechnologies- National University of Science and Technology POLITEHNICA Bucharest** (https://chimie.upb.ro/educatie/scoala-doctorala/conducatori/iliescu-ciprian/)
- **18.06.2019-present- National Research and Development Institute for Microtechnologies- IMT**
  Position: *Senior Research Scientist (CS1)*
  Project related to: IoT PCR, self-assembled nanoparticles, Organ on chip,
  Grants:
  - Advanced techniques and increasing performance in the early detection of SARS-CoV-2 virus (2020-2021)- (only one grant accepted from 18 applications) (2020-2021)- "Solutii 1"- 720 K€
  - Paper-based microfluidic platform for the concentration and amplification of nucleic acids (HEAD-NA) – (2021-2023)- PCE 2020- 240 K€
- **17 April 2017- 17.04.2019 BIGHEART, National University of Singapore**
  Position: *Senior Research Scientist (working directly under the director of the institute -prof Luke P. Lee)*
  Projects related to Photonic PCR, Perfusion cell culture microfluidic chips, Nuclei Acids Amplification and Testing using paper-based microfluidics.
  Other activities: setup Medical IC lab facilities
- **1.03.2017-31.03.2017- National Research and Development Institute for Microtechnologies**
  Position: visiting scientist
  Project: Self-assembling of fluorescent nanoparticles using hydrodynamic focusing
- **26.05. 2003- 31.01.2017: Institute of Bioengineering and Nanotechnology, Singapore**
  Positions: *Senior Research Scientist (2006-2017) working under different groups such as Synthetic Biosystems, Cell and Tissue Engineering, Biomedical Devices; Research Scientist (2003-2006)- Biomedical Devices*
  Projects /grants:
  Successfully led and/or contributed to:
  - Microneedle Array for Transdermal drug delivery

- Dielectrophoresis Cell-Bead Binding for Gene Extraction
- Engineering Complex Tissues with Spatial and Temporal Control of Micro-Environmental Cues
- Circulating Tumor Cells Isolation for Non-Invasive Cancer Diagnosis and Monitoring External grants:
- JCO grant (with IMCB, Singapore) **"**Development of a Human Liver-Vascular Cell-Based Microfluidic Platform to Evaluate Anti-Antherogenic Effects of Nutraceutical"; (2014-2016)
Engage in the BMRC-SERC Joint Diagnostics Grant 2014-2016 related CTC's isolation
- Bilateral Singapore-France research grant: "Microfluidic Directed Self-Assembly of Viromimetic Nanomachines" under Merlion Program with CNRS-Paris 2010-2011,
- Industrial collaborative project: Deeply engage in an industrial collaboration with "Delta Electronics Inc" related food safety Delta-IBN Life Science and Diagnostics Lab
- Industrial collaborative project with Johnson and Johnson

Managerial activity: Setup and manage the IBN- BioMEMS lab, (2003-2017)
Training/courses: CITI Program University of Miami: Responsible Conduct Research, & Human Subject Research.

- **20.07.2010- 20.01.2014: National Research and Development Institute for Microtechnologies**

Position: *Visiting PI & Scientific Director of L10 (Micro & Nanofluidic Lab)*
Grant: PI for an EU funded project: "Microfluidic Factory for Assisted Self-Assembly of Nanosystems" Managerial activities:
- Setup & Lead the "Microfluidic & Nanofluidic Lab" (investments of €600K in IMT cleanroom facilities)
- Lead the above-mentioned project
-Organized a seminar on "Plasma processing and Wafer Bonding" (15 June 2011) Industrial related activity: Design and XeF_2 dry etching system

- **21.05.2001 – 23.05.2003 Nanyang Technological University (Singapore)**

Position: *Post-Doctoral Fellow, School of Mechanical and Production Engineering*
Projects /grants:
- Involved in 3 *internal projects* (wafer level packaging, microphone, and accelerometer).
- Industrial collaborative project: "RF microrelay" with MAXIM (USA) S$1mil. Other activities:
- Setup standard fabrication process for wet etching glass, PECVD -amorphous silicon, silicon and glass wafer thinning (wet process), eutectic Au-Si wafer-to-wafer bonding, and anodic bonding.

- **1.03.1990- 20.05.2001: I.C's Division, Baneasa SA (Bucharest, Romania)**

Positions: *R & D Engineer, Process Engineer in different departments (Packaging, Wafer fab)*
Main achievement: optimization and automatization of the IC packaging, setup fabrication of pressure sensors
Research grants: Successfully led and worked on 3 projects founded by Romanian Agency of Science

- **1.01.2000- 30.04.2001- MicroSi SRL**

Position: *CEO & owner* "MicroSi" was a spin-off with my work from Ph.D. on pressure sensors.

- **1.10.1989- 15.03.1990: SARO S.A. (Targoviste, Romania), Tool Engineering Dept.**

Position: *Design Engineer*
Achievement: Improving mechanical design skills

EDUCATION

2021 Habilitation - University "Politehnica" of Bucharest- Faculty of Chemical Engineering and Biotechnologies. Thesis: Micro- and Nanotechnologies for Chemical Engineering"

1999 Ph.D. -"Suma cum laude" from University "Politehnica" of Bucharest – Faculty of Mechanical Technology Thesis: "Contribution on design and technology of silicon pressure sensors"

1989 B.Sc./M.Sc. - University "Politehnica" of Bucharest – Faculty of Mechanical Technology- Graduation score: 93% Final Year Project: "Application of holographic interferometry in mechanics".

TEACHING, SUPERVISING & MENTORING

Lectures:

- Visiting Professor- Summer School at Northwestern Polytechnic University, Xi'an, P.R. China - "Introduction to Microfabrication" – 8 lectures of 2 hours with final assessments 27 July-9 August 2019 and 20-29 July 2022; 20-230 July 2023
- Industrial lecturer: "Mechatronics design" – National University of Singapore - MCH5004 (August 2004, August 2005 and August 2006).
- Industrial lecturer: "Microsensors and microactuators"- National University of Singapore – ME4284 (2005-2015)- 2 lectures every year one related to" Microfabrication" the other one related to my current research

- Lecturer - "Safety Training Course" (NTU 2001-2003)
- Lecturer - "Introduction in MEMS" (Course dedicated for training persons from industry and Polytechnics) (2001-2002).

Graduate students:

- Current PhD students: (Chemical Engineering-National University of Science & Technology "Politehnica" Bucharest)
  - Elena Radu (joined October 2024)
  - Laura Andrei (joined October 2023)
  - Luminita (Negoescu) Gheorghiu (joined October 2023)
- Co-supervision of Ph.D. students:
  - Liming Yu - National University of Singapore - (graduated in 2007)
  - Deepak Choudhury – National University of Singapore (graduated in 2012)
  - Wen Hao Tong - National University of Singapore (2015)
  - Fang Yu - National University of Singapore (2016)

- Co-supervisor for two "Master of Science" students: Jia-Shen Wei (NUS graduated in 2005), and Yang Jian Jun (NTU, graduated in 2003)
- Supervisor of one attachment student (Ph.D.) during GBPB program: Felicia Celeste Loe (6 months)
- Supervisor of one attachment student (Master): Elena Barbarini (Italy)-6 months- "Polytechnico di Turin"
- External evaluator for PhD thesis:
  1. Ville Saarela -Aalto University, Department of Materials Science and Engineering-2011,
  2. Ling Siang Hooi -Nanyang Technological University, School of MAE, Singapore-2012,
  3. Jaspreet Singh Kochhar -National University of Singapore-2013.
  4. Ruchi Tiwari- Indian Institute of Technology, School of EEE, Delhi, India- 2014.
  5. Lim Chun Ping – Nanyang Technological University, School of MAE-2015.
  6. Li Hairui- National University of Singapore – Department of Pharmacy – 2016
  7. Rebecca Soffe –School of Engineering, Royal Melbourne Institute of Technology (RMIT), Australia-2017
  8. Peter Thrugood –School of Engineering, Royal Melbourne Institute of Technology (RMIT), Australia-2018
  9. Lim Seng Han- National University of Singapore – Department of Pharmacy (2018)
  10. Karine Baassiri - McGill Universisty, Motreal Canada (2024-2025)
- External evaluator QE –Ph.D.:
  1. Jaspreet Singh Kochhar – National University of Singapore – Department of Pharmacy (2010),
  2. Li Hairui- National University of Singapore – Department of Pharmacy (2013, 2016),
  3. Himanshu Kathuria- National University of Singapore – Department of Pharmacy (2015, 2017).
  4. Lim Seng Han- National University of Singapore – Department of Pharmacy (2016)
- External evaluator Master thesis:
  - Michael Kurdzinski–School of Engineering, Royal Melbourne Institute of Technology (RMIT), Australia (2017)

Undergraduate students:

- FYP co-supervisor: 2006 (together with A/P Francis Tay - NUS): Ong Poh Lam, Ong Yan Ying, Chan Shen Jau; 2007(together with A/P Francis Tay – NUS): Maria Ong and Pan Yang; 2007 (together with A/P Daniel Poenar – NTU): Eun Tan Yu; 2008 (together with A/P Francis Tay – NUS): Hoirul Ismail B Ya'Akop
- IBN industrial attachment students (6 month): Jenny Puttri Halliman (NTU)- 2012, Anik Islam Badhan (NUS)- 2015
- JC student: Zhao Feiyu (Nanyang Girls' High School), project "Nanoparticles synthesis usingmicrofluidics"- Finalist in 2017 @ Singapore Science and Engineering Fair.

PUBLICATION LIST

JOURNAL PAPERS
Peer-reviewed publications under ISI-web of Science (*Legend: * = corresponding author*)

1. I.O. Petre, A. Dima, M. Musat, M. Dascalu, G.G. Pircalabioru, F.S. Iliescu, C. Iliescu "Machine Learning for Thyroid Cancer Detection, Presence of Metastasis, and Recurrence Predictions - A Scoping Review" Cancers, (accepted) 2025.
2. B.M. Tihăuan, T. Onisei, W. Slootweg, D. Gună, C. Iliescu, M.C. Chifiriuc, "Cannabidiol - a friend or a foe?" European Journal of Pharmaceutical Science, 2025
3. J. Ghitman, G.G. Pircalabioru, C. Deleanu, E. Vasile, C. Iliescu, H. Iovu "Hybrid fibrous architectures-mediated gene transfer by pDNA nanoparticles into macrophages". Heliyon. 2024 Oct 15;10(19).
4. G. Gradisteanu Pircalabioru, M. Musat, V. Elian, C. Iliescu. Liquid Biopsy: A Game Changer for Type 2 Diabetes. *International Journal of Molecular Sciences*. 2024, 25(5):2661.
5. G. Gradisteanu Pircalabioru, M. Raileanu, M.V. Dionisie, I.O. Lixandru-Petre, C. Iliescu, * Fast detection of bacterial gut pathogens on miniaturized devices: an overview. *Expert Review of Molecular Diagnostics*. 2024,:1-8.
6. V. Dediu, J. Ghitman, G.G. Pircalabioru, K.H. Chan, F.S. Iliescu, C. Iliescu * Trends in Photothermal Nanostructures for Antimicrobial Applications. *International Journal of Molecular Sciences*. 2023; 24(11):9375.
7. J. Feng, J. Neuzil, A. Manz, C. Iliescu,* P. Neuzil, "Microfluidic trends in drug screening and drug delivery, *TrAC Trends in Analytical Chemistry*, vol. 158, 2023, art. no 116821.
8. V. Dediu, M. Busila, V. Tucureanu, F.I. Bucur, F.S. Iliescu, O. Brincoveanu, and C. Iliescu*. "Synthesis of ZnO/Au Nanocomposite for Antibacterial Applications." *Nanomaterials* 12, no. 21, 2022, art. no 3832.
9. F.S. Iliescu, L.T. Hong, J.M.J. Toh, M.P. Suchea, O.N. Ionescu, and C.Iliescu. * "Early Notice Pointer, an IoT-like Platform for Point-of-Care Feet and Body Balance Screening." *Micromachines* 13, no. 5, 2022, art. no 682.
10. G.G. Pircalabioru, F.S. Iliescu, G. Mihaescu, A.I. Cucu, O.N. Ionescu, M. Popescu, M. Simion, L. Burlibasa, M. Tica, M.C. Chifiriuc, C. Iliescu* "Advances in the rapid diagnostic of viral respiratory tract infections," *Frontiers in Cellular and Infections Microbiology,* 2022 vol. 12:, art. No: 807253
11. G. Mihaescu, M.C. Chifiriuc, C.O. Vrancianu, M. Constantin, R. Filip, M.R. Popescu, L. Burlibasa, A.C. Nicoara, A. Bolocan, C. Iliescu, G.G. Pircalabioru, "Antiviral immunity in SARS-CoV-2 infection: from protective to deleterious responses", *Microorganisms* 9, 2021
12. F.S. Iliescu, A.M. Ionescu, L. Gogianu, M. Simion, V. Dediu, M.C. Chifiriuc, G.G. Pircalabioru, C. Iliescu, * "Point-of-Care testing-the key in the battle against SARS-CoV-2 pandemic", *Micromachines*. 2021; 12, issue 12, art. no:146
13. A-C. Bunea, V. Dediu, E.A. Laszlo, F. Pistriţu, M. Carp M, F.S. Iliescu, O.N. Ionescu, C. Iliescu, * "E-Skin: The Dawn of a New Era of On-Body Monitoring Systems" *Micromachines*. vol. 12, issue 9, 2021, art. no:1091.
14. G. Mihaescu, M.C. Chifiriuc, C. Iliescu, C.O. Vrancianu, L.-M. Ditu, L.G. Marutescu, R. Grigore, Ș. Bertești eanu, M. Constantin, G. Gradisteanu Pircalabioru, SARS-CoV-2: From Structure to Pathology, Host Immune Response and Therapeutic Management. *Microorganisms* 8, 2020, art. no: 1468.
15. M. Ni, G. Tresset, C. Iliescu,* C. Hauser, Ultrashort peptide theranostic nanoparticles by microfluidic-assisted rapid solvent exchange, *IEEE Transactions on NanoBioscience*, vol 19 (4), 2020, pp. 627-632,
16. F. Yu, Y.T. Goh, H. Li, N.B. Chakrapani, M. Ni, G.L. Xu, T-M. Hsieh, Y-C. Toh, C. Cheung, C. Iliescu,* H. Yu "A vascular-liver chip for sensitive detection of nutraceutical metabolites from human pluripotent stem cell derivatives" *Biomicrofluidics*, vol. 14, issue 3, 2020, 034108,
17. H. Zhu, P. Podesva, X. Liu, H. Zhang, T. Teply, Y. Xu, H. Chang, A. Qian, Y. Lei, Y. Li, A. Niculescu, C. Iliescu,* P. Neuzil, "IoT PCR for Pandemic Disease Detection and Its Spread Monitoring" *Sensors and Actuators B: Chemical,* vol. 303, 2020, 127098.
18. M. Ni S. Zhuo, C. Iliescu, P.T. So, J.S. Mehta, H. Yu, C. Hauser, "Self-assembling amyloid-like peptides as exogenous second harmonic probes for bioimaging applications," *Journal of Biophotonics*, 2019.
19. F.S. Iliescu, D.P. Poenar, F. Yu, M. Ni, K.H. Chan, I. Cima, H. Taylor, I. Cima, C. Iliescu,* "Recent advances in microfluidics methods in cancer liquid biopsy", *Biomicrofluidics*, vol. 13, issue 4, art. no. 041503, 2019 **(Huge mediatic impact- 10 news stories from 10 outlets, in the top 5% of all research outputs scored by Altmetric-score 73)**
20. F.S. Iliescu, D. Vrtačnik, P. Neuzil, C. Iliescu,* "Microfluidic technology for clinical applications of exosomes" *Micromachines*, vol. 10, issue 6, 2019, art. no. 392,

21. F.S. Iliescu, W.J. Sim, H. Heidari, D.P. Poenar, J. Miao, H.K. Taylor, C. Iliescu,* "Highlighting the uniqueness in dielectrophoretic enrichment of circulating tumor cells," *Electrophoresis,* 2019, vol.40, issue 10, 2019, pp. 1457-1477.
22. H. Zhang, Y. Xu, Z. Fohlerova, H-L. Chang, C. Iliescu,* and P. Neuzil, "LAMP-on-a-chip: revising microfluidic platforms for loop-mediated DNA amplification," *Trends in Analytical Chemistry,* vol. 113, 2019, pp. 44-53.
23. F.S. Iliescu, J.C.M. Teo, D. Vrtačnik, H. Taylor, C. Iliescu,* "Cell therapy using an array of ultrathin hollow microneedles," *Microsystem Technologies,* vol. 24, issue 7, 2018*,* pp. 2905-2912.
24. D. Resnik, M. Možek, B. Pečar, A. Janež, V. Urbančič, C. Iliescu, D. Vrtačnik "In vivo experimental study of noninvasive insulin microinjection through hollow Si microneedle array," *Micromachines*, vol. 9, no. 1, 2018, art. no: 40.
25. F. Yu, R. Deng, W.H. Tong, L. Huan, N. C. Way, A.I. Badhan, C. Iliescu,* H. Yu, "A perfusion incubator liver chip for 3D cell culture with application on chronic hepatotoxicity testing," *Scientific Reports*, vol. 7, 2017, art. no: 14528.
26. M. Ni, G. Tresset, C. Iliescu,* Self-assembled polysulfone nanoparticles using microfluidic chip" *Sensors and Actuators B: Chemical,* vol. 252, issue 2, 2017, pp. 458-462.
27. F. Yu, S. Zhou, Y. Qu, D. Choudhury, Z. Wang, C. Iliescu,* H. Yu, "On chip two-photon metabolic imaging for drug toxicity testing," *Biomicrofluidics*, vol. 11, issue 3, 2017, art. no. 034108.
28. F. Yu, F.S. Iliescu, C. Iliescu, * "A comprehensive review on perfusion cell culture systems" *Inf. Midem - J. Microelectron. Electron. Compon. Mater.*, vol. 46, no. 4, 2016, pp. 163-175.
29. G. Tresset, C. Iliescu,* "Microfluidics-Directed Self-Assembly of DNA-Based Nanoparticles," *Inf. Midem - J. Microelectron. Electron. Compon. Mater.,* vol. 46, no. 4, 2016, pp. 183-189.
30. I. Cima, S.L. Kong, I.B. Tan, W.M. Phyo, D. Lee, M. Hu, D. Sengupta, C. Iliescu, et al "Tumor-derived circulating endothelial cell clusters diagnostic for early colorectal cancer", *Science Translational Medicine*, vol. 8, issue 345, 2016, 345ra89. **(Huge mediatic impact: 15 news stories from 15 outlets, in the top 5% of all research outputs scored by Altmetric-score 175)- Science Journal**
31. L. Alhasan, A. Qi, A. Al-Abboodi, A.R. Rezk, P.P.Y. Chan, C. Iliescu, L.Y. Yeo "Rapid enhancement of cellular spheroid assembly by acoustically-driven microcentrifugation," *ACS Biomaterials Science & Engineering*, vol. 2/6, 2016, pp. 1013–1022.
32. W.H. Tong, F. Yu, J. Yan, X. Hong, N.H. Singh, S.R. Wang, B. Nugraha, L. Xia, E.L.S. Fong, C. Iliescu,* and H. Yu, "Constrained spheroids for prolonged hepatocyte cell culture," *Biomaterials*, vol. 80, 2016, pp. 106-120.
33. C. Iliescu,* G. Tresset "Microfluidics-driven strategy for size-controlled DNA compaction by slow diffusion through water stream," *Chemistry of Materials,* vol. 27, issue 24, 2015, pp. 8193-8197.
34. H. Kathuria, J.S. Kochhar, M.H.M. Fong, M. Hashimoto, C. Iliescu, H. Yu, L. Kang, "Polymeric microneedle array fabrication by photolithography," *Journal of Visualized Experiments (JoVE),* issue 105, 2015.
35. C. Iliescu,* G. Xu, W.H. Tong, F. Yu, C.M. Bălan, G. Tresset and H. Yu "Cell patterning using a dielectrophoretic–hydrodynamic trap," *Microfluidics and Nanofluidics,* vol. 19, issue 2, 2015, pp. 363-373.
36. C. Iliescu, * C. Mărculescu, S. Venkataraman, B. Languille, H. Yu and G. Tresset "On-chip controlled surfactant–DNA coil–globule transition by rapid solvent exchange using hydrodynamic flow focusing," *Langmuir*, vol. 30,/ 44, 2014, pp. 13125-13136.
37. J.S. Kochhar, P. Anbalagan, S. B. Shelar, J.K. Neo, C. Iliescu, L. Kang "Direct microneedle array fabrication of a photomask to deliver collagen through skin," *Pharmaceutical Research,* vol. 31, no. 7, 2014, pp. 1724-1734.
38. D. P. Poenar, C. Iliescu,* J. Boulaire, H. Yu, "Label-free virus identification and characterization using electrochemical impedance spectroscopy," *Electrophoresis*, vol. 35, issue 2-3, February 2014, pp. 433-440.
39. G. Tresset, C. Marculescu, A. Salonen, M. Ni, C. Iliescu,* "Fine control over the size of surfactant-polyelectrolyte nanoparticles by hydrodynamic flow focusing," *Analytical Chemistry,* vol. 85, issue 12, 2013, pp. 5850-5856.
40. I. Cima, C.W. Yee, F.S. Iliescu, W.M. Phyo, T. Lim, C. Iliescu,* M.H. Tan "Label-free isolation of circulating tumor cells in microfluidic devices: current research and perspectives," *Biomicrofluidics*, vol. 7, issue 1, 2013, art. no. 011810. ***(in" top 20" most cited paper published in 2012-2013, top 5 most accessed articles in 2013and 2014)***
41. D. Choudhury, D. van Noort, C. Iliescu, B.X. Zheng, K.-L. Poon, S. Korzh, V. Korzh, H. Yu "Fish and Chips: A microfluidic perfusion platform for monitoring the development of early-stage zebrafish embryos," *Lab on a Chip* vol. 12, issue 5, 2012, pp. 892-900.
42. C. Iliescu,* H. Taylor, M. Avram, J. Miao, S. Franssila, "A practical guide for the fabrication of microfluidic devices using glass and silicon," *Biomicrofluidics*, vol. 6, issue 1, 2012, art. no. 016505 ***(In "Top 5" most read papers in Biomicrofluidics in 2012, in" top 10" most cited paper published in 2012-2013, in top 5 most accessed articles in 2012)***

43. H. Taylor, D. Boning, C. Iliescu "A razor-blade test of the demolding energy in a thermoplastic embossing process," *Journal of Micromechanics and Microengineering,* vol. 21, no. 6. 2011, art. no. 067002.
44. D. Choudhury, X. Mo, C. Iliescu, L.L. Tan, W.H. Tong, H. Yu, Exploitation of chemical and physical constraints for 3D microtissue construction in microfluidics," *Biomicrofluidics*, vol. 5, issue 2, 2011, art. no. 022203.
45. C. Iliescu, M. Avram, B. Chen, A. Popescu, V. Dumitrescu, D. P. Poenar, A. Sterian, D. Vrtacnik, S. Amon, P. Sterian, "Residual stress in thin films PECVD depositions: a review," *Journal of Optoelectronics and Advanced Materials*, vol. 10/4, 2011, pp. 387-394.
46. S. Zhang, W.H. Tong, B. Zheng, T.A.K. Susanto, L. Xia, C. Zhang, A. Ananthanarayanan, X. Tuo, S.R. Binte, R.R. Jia, C. Iliescu, et al, "A robust high-throughput sandwich cell-based drug screening platform," *Biomaterials*, vol. 32, issue 4, 2011, pp. 1229-1241.
47. G.L. Xu, F.E.H. Tay, G. Tresset, F.S. Iliescu, A. Avram, C. Iliescu,* "Recent trends in dielectrophoresis", *Inf. Midem - J. Microelectron. Electron. Compon. Mater.,* vol. 40, no. 4, 2010, pp. 253-262
48. C. Iliescu, * G. Tresset, L. Yu, G. Xu, "3D dielectrophoretic chips: trapping and separation of cell populations," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 13, no. 1, 2010, pp. 49-64.
49. C. Iliescu, * G. Tresset, F.S. Iliescu, P.E. Sterian, "Live/dead cell assay based on dielectrophoresis on a chip," *UPB Scientific Bulletin-Series A-Applied Mathematics and Physics,* vol. 72**,** issue 1**,** 2010, pp. 33-42
50. B. Chen, J. Wei, C. Iliescu,* "Sonophoretic enhanced microneedles array (SEMA) - improving the efficiency of transdermal drug delivery," *Sensors and Actuators B: Chemical,* vol. 145, issue 1, 2010, pp. 54-60.
51. C. Iliescu, * D.P. Poenar, S. T. Selvan, "Frequency dependence on the accuracy of electrical impedance spectroscopy measurements in microfluidic devices," *Journal of Micromechanics and Microengineering,* vol. 20, no. 2, 2010, art. no. 022001.
52. C. Iliescu, * G. Tresset, G.L. Xu, "Dielectrophoretic field-flow method for separating particle populations in a chip with asymmetric electrodes," *Biomicrofluidics,* vol. 3 issue 4, 2009, 044104.
53. M. Ni, W. H. Tong, D. Choudhury, N. A. A. Rahim, C. Iliescu***** and H. Yu, "Cell culture on MEMS platforms: a review," *International Journal of Molecular Sciences*, vol. 10, issue 12, December 2009, pp. 5411-5441.
54. F.E.H. Tay, L. Yu, C. Iliescu, "Particle manipulation by miniaturized dielectrophoretic devices," *Defense Science Journal*, vol. 59, no. 6, 2009, pp. 595-604.
55. F.S. Iliescu, A.R. Sterian, E. Barbarini, M. Avram, C. Iliescu***** "Continuous separation of white blood cells from blood in a microfluidic device," *UPB Scientific Bulletin-Series A-Applied Mathematics and Physics,* vol. 71**,** issue 4**,** 2009, pp. 21-30
56. C. Iliescu, * G.L. Xu, E. Barbarini, M. Avram, A. Avram, "Microfluidic device for continuous magnetophoretic separation of white blood cells," *Microsystem Technologies,* vol. 15, no 8, 2009*,* pp. 1157-1162.
57. C. Iliescu, * J. Wei, B. Chen and P.L. Ong, "Silicon nitride membranes for cell culturing," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 11, no. 2, 2008, pp. 167-176.
58. M. Avram, A.M. Avram, A. Bragaru, A. Ghiu, C. Iliescu, "Plasma surface modification for selective hydrophobic control," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 11, no. 4, 2008, pp. 409-422.
59. B.T. Chen, J. Wei, F.E.H. Tay, Y.T. Wong, C. Iliescu, "Silicon microneedles array with biodegradable tips for transdermal drug delivery," *Microsystem Technologies,* vol.14, no. 7, 2008, pp. 1015-1019.
60. C. Iliescu, * B. Chen, J. Wei and A.J. Pang, "Characterization of silicon carbide films deposited by Plasma Enhanced Chemical Vapor Deposition," *Thin Solid Films,* vol. 516, issue 16, 2008, pp. 5189-5193.
61. J. Wei, P.L. Ong, F.E.H. Tay and C. Iliescu, "A new fabrication method of low stress PECVD SiN_x layers for biomedical application," *Thin Solid Films,* vol. 516, issue 16, 2008, pp. 5181-5188.
62. H. Taylor, D. Boning, C. Iliescu, B.T. Chen, "Computationally efficient modeling of pattern dependencies in the micro-embossing of thermoplastic polymers," *Microelectronic Engineering,* vol. 85, issue 5-6, 2008, pp. 1453-1456.
63. C. Iliescu, B.T. Chen, J.M. Miao, "On the wet etching of Pyrex glass," *Sensors and Actuators A: Physical,* vol. 143,/1, 2008, pp. 154-161.
64. C. Iliescu,* L.M. Yu, F.E.H. Tay, B.T. Chen, "Bidirectional field flow particle separation method in a dielectrophoretic chip with 3D electrodes," *Sensors and Actuators B: Chemical,* vol. 129, issue 1, 2008, pp. 491-496.
65. C. Iliescu,* B.T. Chen, D.P. Poenar and Y.Y. Lee, "PECVD amorphous Silicon Carbide membranes for cell culturing," *Sensors and Actuators B: Chemical,* vol. 129, issue 1, 2008, pp. 404-411.
66. C. Iliescu,* B.T. Chen, "Thick and low stress PECVD amorphous silicon for MEMS applications," *Journal of Micromechanics and Microengineering,* vol. 18, no. 1, 2008, pp. 15024(1-8).
67. L. Yu, C. Iliescu, * G. Xu and F.E.H. Tay, "Sequential field-flow cell separation method in a dielectrophoretic chip with 3D electrodes," *Journal of Microelectromechanical Systems (JMEMS)*, vol. 16, issue 5, 2007, pp. 1120-1129.

68. D.P. Poenar, C. Iliescu, M. Carp, A.J. Pang, K.J. Leck, "Glass-based microfluidic device fabricated by Parylene wafer-to-wafer bonding for impedance spectroscopy," *Sensors and Actuators A: Physical*, vol. 139, issue 1-2, 2007, pp. 162-171.
69. C. Iliescu,* G.L. Xu, P.L. Ong, K.J. Leck, "Dielectrophoretic separation of biological samples in a 3D filtering-chip," *Journal of Micromechanics and Microengineering*, vol. 17, no. 7, 2007, pp. S128-S136.
70. C. Iliescu,* G. Tresset, G.L. Xu, "Continuous field-flow separation of particle populations in a dielectrophoretic chip with three dimensional electrodes," *Applied Physics Letters,* vol. 90, issue 23, 2007*,* pp. 234104/1-3.
71. G. Tresset, C. Iliescu, "Electrical control of loaded biomimetic femtoliter vesicles in microfluidic system," *Applied Physics Letters,* vol. 90, issue 17, 2007, pp. 173901/1-3.
72. C. Iliescu, * G.L. Xu, F.C. Loe, P.L. Ong, F.E.H. Tay, "A 3-D dielectrophoretic filter chip," *Electrophoresis*, vol. 28, issue 7, 2007, pp. 1107-1114.
73. C. Iliescu,* D.P. Poenar, M. Carp, F.C. Loe, "A microfluidic device for impedance spectroscopy analysis of biological samples," *Sensors and Actuators B: Chemical* vol. 123, issue 1, 2007, pp. 168-176.
74. F.E.H. Tay, L. Yu, A.J. Pang, C. Iliescu, "Electrical and thermal characterization of a dielectrophoretic chip with 3D electrodes for cells manipulation," *Electrochimica Acta,* vol. 52, issue 8, 2007, pp. 2862-2868.
75. C. Iliescu,* F.E.H. Tay, J. Miao, "Strategies in deep wet etching of Pyrex glass," *Sensors and Actuators A: Physical,* vol. 133, issue 2, 2007, pp. 395-400.
76. C. Iliescu, * "Microfluidics in glass: technologies and applications," *Inf. Midem - J. Microelectron. Electron. Compon. Mater.,* vol. 36, no. 4, 2006, pp. 204-211.
77. C. Iliescu, * L.M. Yu, G.L. Xu, F.E.H. Tay, "A dielectrophoretic chip with a 3D electric field gradient," *Journal of Microelectromechanical Systems (JMEMS)*, vol. 15, no. 6, 2006, pp. 1506-1513.
78. C. Iliescu, * F.E.H. Tay, G.L. Xu, L. Yu, V. Samper, "A dielectrophoretic chip packaged at wafer level," *Microsystem Technologies*, vol. 12, no. 10-11, 2006, pp. 987-992.
79. F.E.H. Tay, C. Iliescu, * J. Jing and J. Miao, "Defect-free wet etching through Pyrex glass using Cr/Au mask," *Microsystem Technologies*, vol. 12, no. 10-11, 2006, pp. 935-939.
80. J. Ji, F.E.H. Tay, J. Miao, C. Iliescu, "Microfabricated silicon microneedles array for transdermal drug delivery," *J. Phys.: Conf. Ser.*, vol. 34*,* 2006, pp. 1127-1131.
81. L. Yu, Y.Y. Lee, F.E.H. Tay, C. Iliescu, "Spray coating of photoresist for 3D microstructures with different geometries," *J. Phys.: Conf. Ser.*, vol. 34*,* 2006, pp. 937-942.
82. Y.Y. Ong, B.T. Chen, F.E.H. Tay, C. Iliescu, "Process analysis and optimization on PECVD amorphous silicon on glass substrate*,*" *J. Phys.: Conf. Ser.*, vol. 34*,* 2006, pp. 812-817.
83. L. Yu, F.E.H. Tay, G. Xu, B.T. Chen, M. Avram, C. Iliescu, "Adhesive bonding with SU-8 at wafer level for microfluidic devices," *J. Phys.: Conf. Ser.*, vol. 34*,* 2006, pp. 776-781.
84. P.L. Ong, J. Wei, F.E.H. Tay, C. Iliescu,* "A new fabrication method for low stress PECVD - SiN_x layers," *J. Phys.: Conf. Ser.*, vol. 34*,* 2006, pp. 764-769.
85. A.M. Avram, M. Avram, A. Bragaru, R. Vasilco, C. Iliescu, "A biodynamic microsystem for fluids viscosity measurements," *J. Phys.: Conf. Ser.*, vol. 34*,* 2006, pp. 82-88.
86. J. Ji, F.E.H. Tay, J. Miao, C. Iliescu, "Microfabricated microneedle with porous tip for drug delivery," *Journal of Micromechanics and Microengineering*, vol. 16, no. 5, 2006, pp. 958-964.
87. M. Avram, A. Avram, C. Iliescu, "Biodynamical analysis microfluidic system," *Microelectronic Engineering*, vol. 83, issue 4-9, 2006, pp. 1688-1691.
88. C. Iliescu, * F.E.H. Tay, J. Wei, "Low stress and high deposition rate of PECVD - SiN_x layers using high power and high frequency for MEMS applications," *Journal of Micromechanics and Microengineering*, vol. 16, no. 4, 2006, pp. 869-874.
89. M. Avram, C. Iliescu, O. Neagoe, C. Voitinicu, S. Nedelcu, "Bipolar magnetic microsensor for longitudinal and transversal magnetic fields," *Sensors and Actuators A: Physical*, vol. 123-124, 2005, pp. 296-302.
90. C. Iliescu, * J. Jing, F.E.H. Tay, J. Miao and T.T. Sun, "Characterization of masking layers for deep wet etching of glass in an improved HF/HCl solution," *Surface and Coatings Technology,* vol. 198, issue 1-3, 2005, pp. 314-318.
91. C. Iliescu, * M. Carp, J. Miao, F.E.H. Tay, D.P. Poenar, "Analyze of high boron doping from spin on diffusing source," *Surface and Coatings Technology,* vol. 198, issue 1-3, 2005, pp. 309-313.
92. K.L. Tan, C. Iliescu, F.E.H. Tay, H.T. Chua, J. Miao, "Nanotips cold-end contact for microcooling systems," *International Journal of Nanoscience (IJN)*, vol.4, no.4, 2005, pp. 701-707.
93. G.L. Xu, F.E.H. Tay, V. Samper, C. Iliescu, "Multi-channel biotelemetry system using microcontroller with UHF transmit function," *International Journal of Software Engineering and Knowledge Engineering,* vol. 15 issue 2, 2005, pp. 205-212.

94. B.T. Chen, J. Miao, C.K. Lim, F.E.H. Tay, C. Iliescu, "Dynamics behaviors of high-G MEMS accelerometer incorporated with novel micro-flexures," *International Journal of Software Engineering and Knowledge Engineering,* vol. 15 issue 2, 2005, pp. 225-230.
95. L. Yu, F.E.H. Tay, G.L. Xu, C. Iliescu, "Theoretical analysis and experimental research of a novel DEP chip with 3-D silicon electrodes," *International Journal of Software Engineering and Knowledge Engineering,* vol. 15/, issue 2, 2005, pp. 231-236.
96. K.L. Tan, P. Padmanbhan, C. Iliescu, F.E.H. Tay, "Modeling and analysis of nanotips for thermoelectric coolers," *International Journal of Software Engineering and Knowledge Engineering,* vol. 15, issue 2, 2005, pp. 237-242.
97. C. Iliescu,* G.L. Xu, V. Samper, F.E.H. Tay, "Fabrication of a dielectrophoretic chip with 3D silicon electrodes," *Journal of Micromechanics and Microengineering*, vol. 15, no. 3, 2005, pp. 494-500.
98. C. Iliescu, J. Miao, F.E.H. Tay, "Optimization of PECVD amorphous silicon process for deep wet etching of Pyrex glass," *Surface and Coatings Technology*, vol. 192, issue 1, 2005, pp. 43-47
99. C. Iliescu, J. Miao, F.E.H. Tay, "Stress control in masking layers for deep wet micromachining of Pyrex glass," *Sensors and Actuators A*, vol. 117, issue 2, 2005, pp. 286-292.
100. C. Iliescu, J. Miao, "One mask process for silicon accelerometers on Pyrex glass utilizing notching effect in ICP DRIE," *Electronic Letters*, vol. 39, issue 8*,* 2003, pp. 658-659.

Other publications:

101. C. Iliescu, * F.S. Iliescu "Advances on Dielectrophoresis on a chip" *Annals of Academy of Romanian Scientists Series on Science and Technology of Information,* vol. 17, no. 2, Dec 2014, pp. 52-67.
102. C. Iliescu,* **"**A Comprehensive Review on thin Film Depositions on PECVD Reactors" *Annals of Academy of Romanian Scientists Series on Science and Technology of Information,* vol. 14, no. 1-2, 2021, pp. 12-24
103. C. Iliescu,* "Characterization of TEOS thin films deposition on PECVD reactors" "A review on transdermal drug delivery using microneedles: current research and perspective," *Annals of Academy of Romanian Scientists Series on Science and Technology of Information,* vol. 12, no. 1, 2019, pp. 17-30.
104. F.S. Iliescu, C. Iliescu,* "Circulating tumor cells isolation using on-chip dielectrophoretic platforms," *Annals of Academy of Romanian Scientists Series on Science and Technology of Information,* vol. 9, no. 2, July 2016, pp. 7-34.
105. F.S. Iliescu, D. Dumitrescu-Ionescu, M. Petrescu, C. Iliescu,* "A review on transdermal drug delivery using microneedles: current research and perspective," *Annals of Academy of Romanian Scientists Series on Science and Technology of Information,* vol. 7, no. 1, July 2014, pp. 7-34.
106. J. Wei, K.J. Leck, Ph. Gaughwin, M. Avram and C. Iliescu, "Low stress nanoporous SiN_x membrane for cell culture," *Int. J. Computational Materials Science and Surface Engineering*, vol. 2, Nos. 3/4, September 2009, pp. 268–281.
107. L. Yu. F.E.H. Tay, D.P. Poenar, C. Iliescu, "Using contact imprinting for adhesive wafer-to-wafer bonding," *SPIE Newsroom*, April 2007.
108. C. Iliescu, "Wet etching of glass for MEMS applications," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 9, no. 4, December 2006, pp. 285–310.
109. C. Iliescu, B. Chen, J. Miao, M. Avram, A.M. Avram, "Inertial sensors with tunable range," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 9, no. 4, December 2006, pp. 311–320.
110. F.E.H. Tay, C. Iliescu,* and H.T. Chua, "Nanotips array for thermoelectric coolers fabricated using notching effect of the reflected charges on mask," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 9, no.2, October 2006, pp. 99-106.
111. C. Iliescu, M. Avram, J.M. Miao, F.E.H. Tay, "A new fabrication process for inertial sensors with tunable range," *Romanian Journal of Information Science and Technology (ROMJIST)*, vol. 9, no.2, October 2006, pp. 83-90.
112. Y.Y. Lee, L. Yu, F.E.H. Tay and C. Iliescu,* "Characterization of spray coating photoresist for MEMS applications," *Romanian Journal of Information Science and Technology (ROMJIST),* vol. 8, no. 4, December 2005, pp. 383-391.
113. A.M. Avram, M. Avram and C. Iliescu, "A gear wheels microsystem for biodynamical applications," *Romanian Journal of Information Science and Technology (ROMJIST),* vol. 8, no. 4, December 2005, pp. 355-365.
114. M. Avram, C. Iliescu and A.M. Avram, "The optimized capacitive inertial sensor," *Micro and Nanotechnologies Bulletin (Edited by IMT Bucharest, Romania)*, vol.6/ no. 2, June 2005, pp. 5.
115. C. Iliescu, T.T. Sun, J.M. Miao, and F.E.H. Tay, "Fabrication process of a capacitive microphone with p++ diaphragm and silicon bonded top-plate," *Int. J. of Comp. Eng. Sci. (IJCES),* vol. 4, no. 2, June 2003, pp. 687-690.
116. C. Iliescu, J. Miao and M. Avram, "Fabrication of chip scale piezorezistive pressure sensors using screen-printed glass frit packaging," *Int. J. of Comp. Eng. Sci. (IJCES),* vol. 4, no. 2, June 2003, pp. 343-346.

117. T.T. Sun, J. Miao, C. Iliescu, J.B. Sun and H. Zhu, "Study on sidewall roughness of silicon microtrench with a time multiplexed inductively coupled plasma etcher," *Int. J. of Comp. Eng. Sci. (IJCES),* vol. 4, no. 2, June 2003, pp. 319-322.
118. G.L. Xu, F.E.H. Tay, Y.Z. Lao, C. Iliescu, Y.H. Yu, V. Luar, D. Hartono, and Y.Y. Lee, "A dielectrophoresis-based bio-sample preparation," *Int. J. of Comp. Eng. Sci. (IJCES)*, vol. 4, no. 2, June 2003, pp. 277-280.

Book chapters:

1. F. Lee, C. Iliescu, F. Yu, H, Yu, Chapter 3: *"Constrained spheroids/organoids in perfusion culture"* in "Methods in Cell Biology", Academic Press, vol. 146, pp. 43-65, (ISSN 0091-679X, ISBN 9780128142806) 2018. (IF=1.698)
2. F.S. Iliescu, I. Cima, D. Ionescu, C. Iliescu, * Chapter 5: *"Marker-free isolation of CTCs using microfabricated platforms,"* in "Circulating Tumor Cells (CTC's): Detection methods, Health Impact and Emerging Clinical Challenges," (Ed. P.C. Ray) Nova Sci. Pub. Inc, 89-118 2016
3. C. Iliescu,* D.P. Poenar, Chapter 5: "*PECVD amorphous silicon carbide (α-SiC) layers for MEMS applications"* in "Physics and Technology of Silicon Carbide Devices" Intech (Edited by Yasuto Hijikata), pp. 131-148 (ISBN 978-953-51-0917-4), 2013.
4. C. Iliescu,* A. Avram, Chapter 13: *"Metallization over no planar surfaces*" in "Chemical Mineralogy, Smelting and Metallization" (*Editors: E.D. McLaughlin and L.A. Breaux)*, Nova Science Publishers Inc, (ISBN: 978-1-60692-853-0), pp. 289-314, 2009.
5. A. Avram, M. Avram, M. Volmer, D.P. Poenar, C. Iliescu*, "*Magnetic-based microfluidic platform for biomolecular separation" pp. 9-25, in *"*New applications of Micro and Nanotechnologies (*Editors: M. Zaharescu, L. Giurgiu, D. Dascalu*), Romanian Academy Ed., 2009.
6. C. Iliescu, * J. Miao, Chapter 5: *A review on wet etching of glass*, pp. 155-185 in "Glass Materials Research Progress." (*Editors: J.C. Wolf and L. Lange*), Nova Science Publishers Inc, (ISBN 978-1-60456-578-2), 2008.

Invited talks at international conferences:

1. C. Iliescu, DNA compaction using microfluidics, Nanyang Technological University, School of Chemistry, Chemical Engineering and Biotechnology, 14 November 2024, Singapore.
2. C. Iliescu " Bioengineering: from microfluidics to artificial inteligence" Autumn Meeting of the Academy of Romanian Scientists, "The role of artificial intelligence in romania's sustainable development" 2024, September 23rd-24th (*plenary speaker*)
3. C. Iliescu "Microfluidic platforms for drug discovery" RICCCE 23 – 23 rd Romanian International Conference on Chemistry and Chemical Engineering 2022 4-7 September 2024, Constanța-Mamaia, Romania. *(keynote speaker)*
4. F.S. Iliescu, L.G Gheorghiu, C. Iliescu, "Simple method for biocompatible microneedles fabrication" RICCCE 23 – 23 rd Romanian International Conference on Chemistry and Chemical Engineering 2022 4-7 September 2024, Constanța-Mamaia, Romania. *(keynote speaker)*
5. C. Iliescu, "Microphysiological System for Drug Screening" BeHEALTH 2022 – Online International Brokerage Event in Healthcare 25-27 October 2022.
6. C. Iliescu, "Constrained Spheroids for Drug Screening Applications" 2nd Bucharest Polymer Conference 6-8 June 2021, Bucharest, Romania (*plenary speaker*)
7. C. Iliescu, "Microrfluidics strategies for self-assembled nanoparticles", 5th International conference on Emerging Electronics, (IEEE-ICEE 2020), Delhi, India,26-28th Nov.2020
8. C. Iliescu, G. Tresset, M. Ni, C. Marculescu, DNA compaction using microfluidics for gene therapy" 1st Bucharest Polymer Conference, 6-8 June 2018, Bucharest, Romania, (*plenary speaker*)
9. C. Iliescu, G. Tresset, M. Ni, C. Marculescu, "Strategies in microfluidic self-assembly of nanoparticles" 8th IEEE International Nanoelectronics Conference (INEC), 3-5 January 2018, Kuala Lumpur, Malaysia (*invited speaker*).
10. C. Iliescu, "Fine control of DNA compaction using microfluidics", Lab-on a Chip Asia, Microfluidics, POCD & Organ-on-a-Chip, 5-6 December 2016, Singapore (*invited speaker*).
11. C. Iliescu, F. Yu, H. Yu, "On-Chip Incubator for 3D Hepatocyte Cell Culture" – "Microfluidics and Biosensors Workshop" Int. Conf. on Microelectronics, Devices and Materials (MIDEM'16), Ankaran, Slovenia, 28-30 September 2016, *(invited speaker-workshop)*
12. C. Iliescu, F. Yu, H. Yu, "Microfluidic-assisted constrained spheroids for long term cell culture," presented at 7th Australia-New Zealand Nano-Microfluidics Symposium, 21-23 March 2016, Brisbane, Australia (*invited speaker*).
13. C. Iliescu, F. Yu, H. Yu, "Microfluidic platforms for drug screening," presented at 38th Int. Semiconductor Conf., Sinaia, Romania, 12-14 October 2015, (*invited speaker*).

14. C. Iliescu, C. Marculescu, A. Salonen, M. Ni, G. Tresset, "Nanoparticles synthesis by electrostatic interaction in microfluidic devices," presented at 36th Int. Semiconductor Conf., Sinaia, Romania, 14-16 October 2013, (*invited speaker*).
15. D. Van Norrt, D. Choudhury, C. Iliescu, H. Yu "*In Vivo* drug testing in microfluidics on Zebrafish embryo," International Conference on Materials for Advanced Technology (ICMAT 2011), Symposium G: NEMS/MEMS and microTAS, Singapore, 26 June-1 July 2011 *(invited speaker).*
16. C. Iliescu, "Transdermal drug delivery as a microfabrication process," Singapore Symposium on Drug Delivery System, 13-15 May 20011 *(keynote speaker)*
17. C. Iliescu, M. Avram, B. Chen, A. Avram, A. Popescu, V. Dumitrescu, D.P. Poenar, A. Sterian, P. Sterian "Considerations regarding residual stress in thin films PECVD depositions," The 2nd International Colloquium "Physics of Materials" 7-9 October 2010, Bucharest, Romania (*invited speaker*)
18. C. Iliescu, "Recent trends in dielectrophoresis," presented at Int. Conf. on Microelectronics, Devices and Materials (MIDEM'10), Slovenia, 29-30 September 2010, (*invited speaker*)
19. C. Iliescu, "Transdermal drug delivery: a microfabrication approach," Dynamic nanosystems: from concept to applications (workshop) –Bucharest Romania, 21-24 September 2010 (*invited speaker*).
20. C. Iliescu, B. Chen, J. Wei, Z. Yue "Transdermal drug delivery: microfabrication insights" presented at 32nd Int. Semiconductor Conf., Sinaia, Romania, 12-14 October 2009, (*invited speaker*).
21. C. Iliescu, B. Chen, J. Wei and F.E.H. Tay "Microneedles array with biodegradable tips for transdermal drug delivery," Smart Materials, Nano-, and Micro-Smart Systems 2008, Melbourne, Australia, 9-12 December 2008 (*invited speaker*).
22. H. Taylor, C. Iliescu, M. Ni, Y. C. Lam and C. Xing, D. Boning, "Modeling pattern dependencies in the micro-scale embossing of polymeric layers," Smart Materials, Nano-, and Micro-Smart Systems 2008, Melbourne, Australia, 9-12 December 2008 (*invited speaker*).
23. B. Chen, F.E.H. Tay and C. Iliescu "Development of thick film PECVD Amorphous silicon with low stress for MEMS applications," Smart Materials, Nano-, and Micro-Smart Systems 2008, Melbourne, Australia, 9-12 December 2008 (*invited speaker*).
24. C. Iliescu, "Dielectrophoresis from 2D to 3D, from micro to nano," presented at "Nanoscience and Nanotechnology Workshop"- Bucharest, Romania, 17-19 September 2008 (organized by IMT Bucharest and Romanian Academy) (*invited speaker-workshop*).
25. C. Iliescu, G.L. Xu, P.L. Ong, L. Yu, F.E.H. Tay, F.S. Iliescu, G. Tresset, "Manipulation of biological samples using electric field", at 30th Int. Semiconductor Conf., Sinaia, Romania, 15-17 October 2007, (*invited speaker*).
26. C. Iliescu, G.L. Xu, P.L. Ong, G. Tresset, L. Yu, F.E.H. Tay, F. Loe, "Dielectrophoresis from 2D to 3D" presented at International Conference on Materials for Advanced Technology ICMAT 2007- Symposium H, Singapore, 1-6 July 2007 pp. 8-11 *(keynote speaker*).
27. C. Iliescu, J. Wei, B. Chen, P.L. Ong and F.E.H. Tay "Low stress silicon nitride layers for MEMS applications," presented at Smart Materials, Nano-, and Micro-Smart Systems 2006, Adelaide, Australia, 10-13 December 2006. (*keynote speaker*).
28. C. Iliescu, "Microfluidics in glass: technologies and applications," presented at Int. Conf. on Microelectronics, Devices and Materials (MIDEM'06), Slovenia, 13-15 September 2006 *(invited talk - workshop)*.
29. F.E.H. Tay, C. Iliescu and L. Yu, "Cell manipulation in dielectrophoretic (DEP) chip with 3D electrode," presented at International Society of Electrochemistry, ISE Spring Meeting 2006, Singapore, 17–20 April 2006 *(invited speaker).*
30. C. Iliescu, F.E.H. Tay, G.L. Xu and L.M. Yu, "Cell separation technique in dielectrophoretic chip with bulk electrode," presented at Microelectronics, MEMS, and Nanotechnology 2005, Brisbane, Australia, 11-14 December 2005 (*keynote speaker*) -
31. C. Iliescu, B.T. Chen, F.E.H. Tay, G.L. Xu and J. Miao, "Characterization of deep wet etching of glass," presented at Microelectronics, MEMS, and Nanotechnology, Brisbane, Australia, 11-14 December 2005. (*invited speaker*).
32. C. Iliescu and F.E.H. Tay, "Wet etching of glass," presented at Int. Semiconductor Conf. – CAS 2005 28th Edition, and Sinaia, Romania, 2-4 October 2005 (*plenary speaker*)

Invited Seminars:

29. C. Iliescu "eBio-hub from Mechanical engineering to medicine" – workshop "Translational Multiplier Event" 18-19 octobrie 2023 Bucuresti, Universitatea Nationala de Stiinta si Technologie Politehnica din Bucuresti (https://ebio-hub.upb.ro/events/ebio-hub-events/2023/10/18/1/)
30. C. Iliescu "ERA Chair program- learning from others" (https://inginerie.ulbsibiu.ro/dep.iim/?p=1263) semiar invitat – Universitatea Lucian Blaga Sibiu 25.05.2023
31. C. Iliescu, "Microfluidic-assisted constrained spheroids cell culture" Laboratoire de Physique des Solides, Université Paris-Sacalay, CNRS, 19 July 2019, France

32. C. Iliescu, "Microfluidics in cell culture and gene therapy"- Northwestern Polytechnic University, 2 Nov. 2018, Xi'an, P.R. China.
33. C. Iliescu, "DNA compaction using hydrodynamic flow focusing" – Yale-NUS College, 18 August 2017, Singapore.
34. C. Iliescu, "Self-assembled nanoparticle using microfluidics"- Babes- Bolyai University, 28 March 2017. Cluj-Napoca, Romania.
35. C. Iliescu, "Microfluidics in Silicon and Glass: Technologies and Applications," SIMTech Microfluidics Seminar, 6 March 2013, Singapore
36. C. Iliescu, "Microfluidics in drug discovery," University of Ljubljana, 19 Oct. 2012, Slovenia
37. C. Iliescu, "Dielectrophoresis in microfluidic devices," Laboratoire de Physique des Solides, Université Paris-Sud, CNRS, 20 April 2011, France
38. C. Iliescu, "BioMEMS research in IBN," National Institute of Research and Development in Microtechnology (IMT), 27 Sept. 2010, Romania.
39. C. Iliescu, "Transdermal drug delivery: microfabrication insights," invited talk, "Materials week"- Republic Polytechnic, 12 May 2009,
40. C. Iliescu, "BioMEMS research in IBN," Polytechnic University of Bucharest, Department of Physics 2, 16 Sept. 2008, Bucharest, Romania.

CO-EDITOR:

F.E.H. Tay, J. Miao, J. Bergstrom and C. Iliescu, "International MEMS Conference 2006", Journal of Physics: Conferences Series, vol. 34.

CONFERENCES:

1. B.M. Tihăuan, E. Radu, L.-E. Andrei, G. Tresset , S. Avramescu, F.S. Iliescu, G. Grădișteanu-Pîrcălăbioru, L. Măruțescu, C. Iliescu "Beyond the surface: how the transdermal delivery of cannabidiol can unlock new antimicrobial sustained effects", ESCMID – Congress of the European Society of Clinical Microbiology and Infectious Diseases, 11-15 April 2025, Viena, Austria
2. F.S. Iliescu, S.N. Ramli, C. Iliescu "Trigering students' interest in an active learning environment" The 6th World Congres of Education, Singapore 12-14 November 2024
3. C. Cobianu, M. Gheorghe, M. Modreanu, G.S. Perodia, F.M. Garcia, M. Losurdo, G. Gradisteanu, C. Iliescu, "Localized Surface Plasmons in films and nanomateriale și aplicațiile lor în nanofotonică și Nanomaterials and Their Applications in științele biomedicale Nanophotonics and Bio-Medical Science" Autumn Meeting of the Academy of Romanian Scientists, "The role of artificial intelligence in romania's sustainable development" 2024, September 23rd-24th
4. C. Iliescu, G. Tresset "Polysulfone nanoparticles obtained by microfluidics for biological applications"Autumn Meeting of the Academy of Romanian Scientists, " The role of artificial intelligence in romania's sustainable development " 2024, September 23rd-24th
5. L. Andrei, M. Carp, G. Gradisteanu, C. Iliescu "Bacterial Lysis Efficiency by using a Lab-On-Chip System""Polysulfone nanoparticles obtained by microfluidics for biological applications"Autumn Meeting of the Academy of Romanian Scientists, " The role of artificial intelligence in romania's sustainable development " 2024, September 23rd-24th
6. F.S. Iliescu, C. Iliescu, "Microneedles for cell therapy" National Scientific Conference Academy of Romanian Scientists:May 24 - 25, 2024, Bucharest
7. F.S. Iliescu, C. Iliescu–"Microneedles for cell therapy" – National Scientific Conference of Academy of Romanian Scientists 24-25 May 2024 Bucharest, Romania
8. L. Andrei, C. Iliescu, C. Cobianu, G. Gradisteanu Pircalabioru, "Plasmonic Silver Nanoparticles Complexed with ZnO: Synergistic Effect on Surface Pathogens" National Scientific Conference of Academy of Romanian Scientists 24-25 May 2024 Bucharest, Romania
9. C. Iliescu, F.S. Iliescu, „Cell printing with electric field"- Autumn Meeting of the Academy of Romanian Scientists, "Science for a health society" 21-23 September 2023, Constanta, Romania.
10. V. Dediu, M. Busila, F.I. Bucur, O. Brincoveanu, F.S. Iliescu , V. Tucureanu and C. Iliescu „ZnO NR/Au NP Nanocomposites for Antibacterial Applications"- 9th Nanotech & Nanomaterials Research Conference (Nano Rome 2023) 12-14 June 2023, Rome, Italy.
11. C. Iliescu–"Microfluidic assisted self–assembled theranostic nanoparticles" – Spring Meeting of the Academy of Romanian Scientists „Digital transformation of Science", 10-11 June 2023 Bucharest, Romania
12. F.S. Iliescu, J.M.J. Toh, L.T. Hong, O.N. Ionescu, C. Iliescu, "A user friendly Body Balance Device for Point of Care Screening" Autumn Meeting of the Academy of Romanian Scientists, "The Role of Science in Solving

Contemporary Crisis" 3-5 November 2022, Cluj-Napoca, Romania.

13. V. Dediu, M. Carp, F.S. Iliescu, E.A. Laszlo, C. Pachiu, and C. Iliescu. "PDMS Based Microfluidics Fabrication Using 3D-Printed Molds." Proc. of the 45th Int. Semiconductor Conf., *(CAS)*, pp. 243-246. 12-14 October 2022, Poiana Brasov, Romania. *(in IEEE-library)*.
14. C. Iliescu and F. Yu "Microphysiological systems for drug toxicity evaluation" " 57th International Conference On Microelectronics, Devices And Materials, 14nd-16th, September 2022, Maribor, Slovenia
15. F.S. Iliescu, J.M.J. Toh, L.T. Hong, O.N. Ionescu, C. Iliescu, "The Early-Warning Indicator for point-of-care feet and body balance screening toxicity evaluation" 14nd-16th, September 2022, Maribor, Slovenia
16. C. Iliescu, G. Tresset and M. Ni, "Fabrication of Theranostic Nanoparticles - a Microfluidic Approach", Autum Meeting of the Academy of Romanian Scientists, 18th November 2021, Bucharest, Romania.
17. C. Iliescu, G. Tresset and M. Ni "Microfluidics-assited theranostic nanoparticles" 56th International Conference On Microelectronics, Devices And Materials, 22nd-24th, September 2021, Ljubljana, Slovenia
18. M. Carp, V. Dediu, F. Pistritiu, E.A. Lazlo, C. Iliescu, "Effective control of TEOS-PECVD thin film depositions" Proc. of the 43rd Int. Semiconductor Conf., Sinaia, Romania, 7-9 Oct. 2020, pp. 195-198 *(in IEEE-library)*.
19. C. Iliescu, C Marculescu, G. Tresset, "Romanian-France collaboration on DNA compaction using microfluidics" Autumn Meeting of the Academy of Romanian Scientists, 20-21 March 2019, Brasov.
20. R. B. Abdul Razar, S. S. M. Wong, S. Gunaseelan, C. Iliescu, J. J.E. Chua, "Microfluidics to study the role of intracellular transport in neuromuscular junction formation" 3rd Health technology Symposium, 1-2 July 2019, Singapore
21. C. Iliescu, F. Yu, H. Yu, "On-chip incubator for constrained liver spheroids" 5th International Conference "Implementation of Microreactor Technology in Biotechnology" - IMTB 2019, 19-22 May 2019, Cavtat, Croatia.
22. C. Iliescu, F.S. Iliescu, F. Yu, "Liver-on-a-chip", Spring Meeting of the Academy of Romanian Scientists, 23-24 March 2017, Bucharest.
23. G. Tresset, C. Iliescu, C. Mărculescu, S. Venkataraman, B. Languille, and M. Ni, "Microfluidics-direct assembly of DNA-based nanoparticles," The 4th International Soft Matter Conference (ISMC2016), 12-16 September 2016, Grenoble, France.
24. C. Iliescu, C. Mărculescu, M. Ni, B. Languille, S. Venkataraman, and G. Tresset, "A microfluidic method for fine control of surfactant-DNA nanoparticles" 6TH ANZNMF Symposium, 31 March– 2 April 2015, Melbourne, Victoria, Australia.
25. Y. Fang, Y. Qu, S.M. Zhuo, D. Choudhury, Z.P. Wang, C. Iliescu and H. Yu. "On Chip Two-photon Metabolic Imaging for Drug Toxicity Testing," Lab-on-a Chip, Microfluidics & Microarray World Congress, September 18-19, 2014, San Diego, California, USA
26. C. Iliescu, C. Maraculescu, D. Resnik, and D. Vrtacnik, "Characterization of TEOS thin film deposition in PECVD reactors," Proc. of 50th Int. Conf. on Microelectronics, Devices and Materials (MIDEM'14), Slovenia, 8-10 Oct. 2014, Ljubljana, Slovenia, pp. 199-202.
27. C. Iliescu, G. Tresset, C. Marculescu, A. Salonen and M. Ni, "Libraries of surfactant-polyelectrolyte nanoparticles by hydrodynamic flow focusing," 3rd NanoToday Conference 8-11 Dec. 2013, Singapore.
28. C. Iliescu, G. Tresset, C. Marculescu, M. Ni, A. Salonen, "Surfactant-Polyelectrolyte nanoparticles fabricated using microfluidic devices," 1st IBN Int. Symposium, 11-13 Jan. 2013, Singapore.
29. F.S. Iliescu, A. P. Bobei, P. Sterian, C. Iliescu, "A parallel between transdermal drug delivery and microtechnology," 3rd Int. Col. "Physics of Materials" (PM-3), 15-16 Nov. 2012, University "Politehnica" of Bucharest, Romania
30. C. Maraculescu, C. Balan, G. Tresset, M. Ni, C. Iliescu "Synthesis of polymeric nanoparticles using hydrodynamic focusing in a microfluidic device," Proc. of the 48th Int. Conf. on Microelectronics, Devices and Materials (MIDEM'12), Slovenia, 19-21 Sept. 2012, Otocec, Slovenia, pp. 199-202.
31. F.S. Iliescu, C. Iliescu, "Approaching transdermal drug delivery as a micro-fabrication process," Proc. of the 48th Int. Conf. on Microelectronics, Devices and Materials (MIDEM'12), Slovenia, 19-21 Sept. 2012, Otocec, Slovenia pp. 194- 198.
32. C. Balan, C. Marculescu, C. Iliescu, "Micro-PIV measurements for hydrodynamic characterizations of microfluidic flows," Proc. of the 35th Int. Semiconductor Conf., Sinaia, Romania, 11-13 Oct. 2012, pp. 247-250 *(in IEEE-library)*.
33. L. Zhu, W.H. Tong, Y-C. Toh, D. Choudhury, Z.F. Wang, C. Iliescu, H. Yu, "Enhance microfeature on glass-

silicon microfluidic channel of 3D hepatocyte cell culture device, " 9th World Biomaterial Congress, 1-5 June 2012, Chendu, China

34. C.M. Balan, M. Avram, A. Avram, G. Xu, R. Deng, C. Iliescu, "A 3D chaotic microfluidic mixer," 22nd edition of Micromechanics and Microsystem Technology European Workshop, 19-22 June 2011, Tonsberg, Norway.
35. D. Choudhury, D. van Noort, C. Iliescu, B. Zheng, K-L. Poon, S. Korzh, V. Korzh, H. Yu "Fish-Chip: A microfluidic device for studying drug toxicity in developing Zebra fish embryos," The 6th Int. Conf. on Microtechnologies in Medicine and Biology, MMB 2011 Conference, Lucerne Switzerland, 4-6 May 2011
36. D. Choudhury, D. Van Nort, C. Iliescu, H. Yu, "*Fish on Chip*: A microfluidic platform for *in vivo* drug studies in developing fish embryo, " The 2nd Conf. on Advances in Microfluidics and Nanofluidics & Asia-Pacific International Symposium on Lab on Chip, *Singapore,* 5–7 Jan. 2011.
37. M. Avram, A.M. Avram, A. Bragaru, B. Chen, D.P. Poenar, C. Iliescu, "Low stress PECVD amorphous Silicon Carbide for MEMS applications*,"* Proc. of the 33rd Int. Semiconductor Conf., Sinaia, Romania, 11-13 Oct. 2010 *(in IEEE- library)*.
38. C. Iliescu, G. Tresset, G. Xu, "Cell sorting in a dielectrophoretic device with asymmetric electrodes," 32nd Int. Semiconductor Conf., Sinaia, Romania, 12-14 Oct. 2009.
39. N.A.A. Rahim, C. Iliescu, R. Kamm, H. Yu, "Microfluidic device captures correlation between hMSC differentiation capacity and migration activity" World Stem Cell Submit, Baltimore, Maryland, USA, 21-23 Sept. 2009.
40. B. Chen, C. Iliescu, "Microfabricated silicon carbide membrane as cell culture platform," 1st Nanotoday Conference, Singapore, 2-5Aug. 2009.
41. C. Iliescu, G. Xu E. Barbarini, M. Avram and F.S. Iliescu, "Paramagnetic microchip for high gradient separation of blood cell," Smart Materials, Nano-, and Micro-Smart Systems 2008, Melbourne, Australia, 9-12 Dec. 2008. *(in SPIE library)*
42. J. Wei, B. Chen, D.P. Poenar, Y.Y. Lee and C. Iliescu, "Low-stress PECVD amorphous silicon carbide (α-SiC) layers for biomedical application," Smart Materials, Nano-, and Micro-Smart Systems 2008, Melbourne, Australia, 9-12 Dec. 2008. *(in SPIE library)*
43. M. Avram, C. Iliescu, M. Volmer and A. Avram "Microfluidic device for magnetic separations in lab-on-a-chip systems," 21st International Microprocesses and Nanotechnology Conference (MNC 2008), 27-30 October 2008, Fukuoka, Japan.
44. M. Avram, C. Iliescu, M. Volmer, F.S. Iliescu, A.M. Avram, "Microfluidic device for biocells manipulation and measurement," Proc. of the 31st Int. Semiconductor Conf., Sinaia, Romania, 12-15 Oct. 2008, vol. 1, pp. 91-94 *(in IEEE- library)*.
45. M. Avram, C. Iliescu, M. Volmer and A. Avram, "Magnetic microfluidic device for biological analysis in lab-on-a-chip systems," Proc. of the 34th International Conference on Micro- and Nano-Engineering, Athens, Greece, 15–19 Sept. 2008, paper no. 543.
46. E. Barbarini, M. Avram, A.R. Sterian, G. Xu and C. Iliescu, "Theoretical and experimental considerations regarding magnetic separation in microfluidic devices," 8th Word Congress on Computational Mechanics (WCCM8) and 5th European Congress on Computational Applied Sciences and Engineering, Venice, Italy, 30 June-4 July 2008.
47. C. Iliescu, E. Barbarini, G. Xu, M. Avram, A. Avram, "Microfluidic device for continuous magnetophoretic separation of red blood cells," Proc. of Design, Test, Integration and Packaging (DTIP) 2008, 9-11 April 2008, Nice, France.
48. C. Iliescu, J. Wei, P.L. Ong, B. Chen*, "Low stress PECVD SiN_x process for biomedical application,"* Proc. of the 30th Int. Semiconductor Conf., Sinaia, Romania, 15-17 Oct. 2007, vol. 1, pp. 139-142 *(in IEEE-library).*
49. M. Avram, M.A. Avram, A. Bragaru, A. Ghiu, C. Iliescu, "*Plasma surface modification of polymer substrate for selective hydrophobic control,"* 30th Int. Semiconductor Conf., Sinaia, Romania, 15-17 Oct. 2007, vol. 1, pp. 91-94 *(in IEEE- library)*.
50. H. Taylor, B.T. Chen, C. Iliescu, D. Boning, "Computationally efficient modelling of pattern dependencies in the micro- embossing of thermoplastic polymers," 33rd Int. Conf. on Micro- and Nano-Engineering, 23-26 Sept. 2007, Copenhagen, Denmark.
51. B. Chen, C. Iliescu, and F.E.H. Tay, "Study of PECVD silicon carbide films and their BioMEMS applications," SBE"s 3rd International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.

52. P. Gaughwin, C. Iliescu, J. Wei, A. Thomson, B. Lim, "Microfluidic culture platforms (MCPs) for compartmentalized neuronal cell culture," SBE"s 3rd International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.
53. P.L. Ong, G.L. Xu, K.J. Leck and C. Iliescu, "Dielectrophoretic cell separation under continuous flow in a 3-D capacitor chip" SBE's 3rd International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.
54. J. Wei, B. Chen, F.E.H. Tay, Y.T. Wang and C. Iliescu, "The fabrication and In vitro characterization of biodegradable silicon microneedles for transdermal drug delivery," SBE"s 3rd International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.
55. C. Iliescu, L. Yu, F.E.H. Tay and A.J. Pang "Bidirectional field-flow particle separation method in a dielectrophoretic chip with 3D electrodes," Proc. of the 14th International Conference on Solid State Sensors, Actuators and Microsystems- "Transducers'07 & Eurosensors XXI"- 10-14 June 2007, Lyon, France, pp.1837-1840.
56. B. Chen, J. Wei, F.E.H. Tay, YT Wong, C. Iliescu, "Silicon microneedles array with biodegradable tips for transdermal drug delivery," Proc. of Design, Test, Integration and Packaging (DTIP) 2007, 25-27 April 2007 - Stresa, Lago Maggiore, Italy, pp. 269-272.
57. G. Tresset and C. Iliescu "On-chip electrofusion of loaded biomimetic containers," 51st Biophysical Society Annual Meeting, 3-7 March 2007, Baltimore, Maryland, USA.
58. C. Iliescu, B. Chen and J. Miao, "Deep wet etching-through of 1 mm Pyrex glass wafer for microfluidics applications," Proc. Of the IEEE Int. Conf. On Micro Electro Mechanical Systems (MEMS, 393-396, 21-25 Jan. 2007, Kobe, Japan.
59. J. Wei, P.L. Ong, F.E.H. Tay and C. Iliescu, "A new fabrication method of low stress PECVD SiN_x layers for biomedical application," Thin Films 2006, Singapore, 11-15 Dec. 2006.
60. B. Chen, C. Iliescu, F.E.H. Tay and J. Miao, "Low stress PECVD amorphous silicon for MEMS applications," Thin Films 2006, Singapore, 11-15 Dec. 2006.
61. A.J. Pang, B. Chen, J. Wei, F.E.H. Tay, C. Iliescu, "Characterization of silicon carbide films by Plasma-Enhanced Chemical Vapor Deposition," Thin Films 2006, Singapore, 11-15 Dec. 2006.
62. L. Yu, A.J. Pang, B. Chen, F.E.H. Tay, C. Iliescu, "Adhesive wafer-to-wafer bonding using contact imprinting," Smart Materials, Nano-, and Micro-Smart Systems 2006, Adelaide, Australia, 10-13 Dec. 2006. Proc. of SPIE vol. 6415, pp. 64151I-1- 64151I-7 *(in SPIE library)*
63. C. Iliescu, D.P. Poenar, K.J. Leck, M. Carp, A.J. Pang, F.C. Loe and F.S. Iliescu, "Novel microfluidic device for cell characterization by impedance spectroscopy," Smart Materials, Nano-, and Micro-Smart Systems 2006, Adelaide, Australia, 10-13 Dec. 2006, Proc. of SPIE, vol. 6416, Jan. 2007, pp. 64160F-1-64160F-6. *(in SPIE library)*
64. C. Iliescu, G. Xu, F.E.H. Tay, P.L. Ong "An electromechanical filter for bioparticles trapping," Smart Materials, Nano-
, and Micro-Smart Systems 2006, Adelaide, Australia, 10-13 Dec. 2006, Proc. of SPIE, vol. 6416, January 2007, pp. 64160G/1-7 *(in SPIE library)*
65. A. Avram, M. Avram M. Volmer, C. Iliescu, "BioMEMS for the determination of rheological properties of biological fluids," Smart Materials, Nano-, and Micro-Smart Systems 2006, Adelaide, Australia, 10-13 Dec. 2006. Proc. of SPIE vol. 6415, pp. 64150V-1-64150V-11 *(in SPIE library)*
66. L. Yu, C. Iliescu, F.E.H. Tay and B. Chen, "SU8 adhesive bonding using contact imprinting," Proc. of 29th edition of Int. Semiconductor Conf. – CAS 2006, vol. 1, pp. 189-192, Sinaia, Romania, 27-29 Sept. 2006 *(in IEEE-library)*.
67. M. Avram, M. Volmer, A.M. Avram, C. Iliescu and A. Bragaru, "Advance magnetoresistance sensing of rotation rate for biomedical applications," Proc. of 29th edition of Int. Semiconductor Conf. – CAS 2006, Sinaia, Romania, vol. 1, pp. 231-234, 27-29 Sept. 2006 *(in IEEE-library)*.
68. M.A. Avram, M. Avram, C. Iliescu and A. Bragaru, "Flow of non-Newtonian fluids," Proc. of 29th edition of Int. Semiconductor Conf. – CAS 2006, Sinaia, Romania, vol. 2, pp.433-436, 27-29 Sept. 2006 *(in IEEE-library)*.
69. C. Iliescu, G. Xu, F.C. Loe, F. E.H. Tay, "A 3D iDEP chip-filter," 2nd International Conference of Bioengineering and Nanotechnology (ICBN), 5-7 Sept. 2006, Santa Barbara, California, USA.
70. C. Iliescu, G. Xu, F.C. Loe and F.E.H. Tay, "A 3D dielectrophoretic chip-filter with parallel plate electrodes," Proc. of Micromachines Europe (MME2006), pp. 97-100, 3-5 Sept., Southampton, UK.
71. D.P. Poenar, C. Iliescu and J. Liang, "Microfluidic device for electrical cell characterization fabricated by

Parylene- based wafer-to-wafer bonding, " Proc. APCOT, 25-28 June 2005, Singapore.

72. P.L. Ong, J. Wei, F.E.H. Tay and C. Iliescu, "A new fabrication method for low stress PECVD – SiN_x layers," Int. MEMS Conference (iMEMS), 9-12 May 2006, Singapore.
73. L. Yu, F.E.H. Tay, G. Xu, B. Chen, M. Avram and C. Iliescu, "Adhesive bonding with SU-8 at wafer level for microfluidic devices," Int. MEMS Conference (iMEMS), 9-12 May 2006, Singapore.
74. Y.Y. Ong, B.T. Chen, F.E.H. Tay and C. Iliescu, "Optimization of PECVD-amorphous Silicon deposition on glass substrate for MEMS applications," Int. MEMS Conference (iMEMS), 9-12 May 2006, Singapore.
75. A. Avram, M. Avram and C. Iliescu, "A biodynamic microsystem for fluids viscosity measurements," Int. MEMS Conference (iMEMS), 9-12 May 2006, Singapore.
76. L. Yu, Y.Y. Lee, F.E.H. Tay and C. Iliescu, "Spray coating of photoresist for 3D microstructures with different geometries," Int. MEMS Conference (iMEMS), 9-12 May 2006, Singapore.
77. J. Ji, F.E.H. Tay, J. Miao and C. Iliescu "Microfabricated Silicon microneedle array for transdermal drug delivery," Int. MEMS Conference (iMEMS), 9-12 May 2006, Singapore.
78. F.E.H. Tay, G.L. Xu and C. Iliescu, "A new fabrication process of Silicon nanotips – NERCOM," Microelectronics, MEMS, and Nanotechnology, Brisbane, Australia, 11-14 Dec. 2005 *Proc. of SPIE vol. 6036. (in SPIE library).*
79. Y.Y. Lee, L. Yu, F.E.H. Tay and C. Iliescu, "Optimization of spray coating photoresist for high topography surfaces," Proc. of Int. Semiconductor Conf. – CAS 2005 28th Edition, vol. 1, pp. 171-174, Sinaia, Romania, 2-4 Oct. 2005 *(in IEEE-library)*.
80. M. Avram, A. Avram, C. Iliescu, E. Manea and C. Voitincu, "Microfluidic dynamic system for biological fluid viscosity measurements," Proc. of Int. Semiconductor Conf. – CAS 2005 28th Edition, vol. 1, pp. 223-226, Sinaia, Romania, 2-4 Oct. 2005 *(in IEEE-library)* - (*best paper award)*.
81. F.E.H. Tay, C. Iliescu and H.T. Chua, "Fabrication of nanotips array for thermoelectric coolers using NERCOM process," Proc. of Int. Semiconductor Conf. – CAS 2005 28th Edition, vol. 2, pp. 285-288, Sinaia, Romania, 2-4 Oct. 2005. *(in IEEE-library)*.
82. M. Avram, G. Brezeanu, A. Avram, O. Neagoe, M. Brezeanu, C. Iliescu, C. Codreanu and C. Voitincu, "Contributions to development of high power SiC – IGBT," Proc. of Int. Semiconductor Conf. – CAS 2005 28th Edition, vol. 2, pp. 365- 388, Sinaia, Romania, 2-4 Oct. 2005 *(in IEEE-library)*.
83. M. Avram, A. Avram and C. Iliescu, "Biodynamical analysis microfluidic system," Proc. of the 31st International Conference on Micro- and Nano-Engineering, Vienna, Austria, 19 – 22 Sept. 2005, pp. 3_o-11, 2005.
84. M. Avram, A. Avram, C. Codreanu, C. Voitincu and C. Iliescu, "Silicon integrated magnetic sensor for accurate magnetic field measurement," Proc. of Eurosensors XIX, vol. 2, WPb 52, Barcelona, Spain, 11-14 Sept.2005.
85. C. Iliescu, G.L. Xu, F.E.H. Tay and J. Miao, "SU8 wafer-to-wafer bonding using contact imprinting," Proc. ICMAT 2005 (Symposium F), pp. 99-102, Singapore, 3-8 July 2005.
86. L.M. Yu, G.L. Xu, F.E.H. Tay, V. Samper and C. Iliescu, "A DEP chip with 3D electrodes and lateral inlet/outlet," ICMAT 2005 (Symposium C), Singapore, 3-8 July 2005.
87. G.L Xu, V. Samper, M. Chen, C. Iliescu and F.E.H. Tay, "Controlling the third dimension of electrodes for dielectrophoretic cell manipulation," ICMAT 2005 (Symposium C), Singapore, 3-8 July 2005.
88. J. Wei, F.E.H. Tay, C. Iliescu and K.J. Leck, "Nanofilters fabricated by stress controlled Si_3N_4 membrane for cell culture," ICMAT 2005, (Symposium C), Singapore, 3-8 July 2005.
89. K.L. Tan, C. Iliescu, F.E.H. Tay and P. Neuzil, "Nanotips fabrication using notching effect of reflected charges on mask (NERCOM)," Proc. of ICMAT 2005 (Symposium F), pp. 83-86, Singapore, 3-8 July 2005.
90. L.M. Yu, Y.Y. Lee, J. Wei, F.E.H. Tay, D.P. Poenar and C. Iliescu, "Spray coated photoresist over via-holes etched in Silicon," Proc. of ICMAT 2005 (Symposium F), pp. 79-82, Singapore, 3-8 July 2005.
91. C. Iliescu, K.L. Tan, F.E.H. Tay and J. Miao, "Deep wet and dry Etching of Pyrex glass. A review," Proc. ICMAT 2005 (Symposium F), pp. 75-78, Singapore, 3-8 July 2005.
92. F.E.H. Tay, C. Iliescu, J. Jing and J.M. Miao, "Defect-free wet etching through Pyrex glass using Cr/Au mask," Proc. of DTIP 2005, pp. 322-327, Montreux, Switzerland, 1-3 June 2005.
93. C. Iliescu, F.E.H. Tay, G.L. Xu, L.M. Yu and V. Samper, "A dielectrophoretic chip packaged at wafer level," Proc. of DTIP 2005, pp. 9-15, Montreux, Switzerland, 1-3 June 2005.
94. K.L. Tan, P. Padmanbhan, C. Iliescu and F.E.H. Tay, "Modeling and analysis of nanotips for thermoelectric coolers," 1st Int. Embedded and System Conf. (IEHSC), Singapore, 10-13 May 2005.
95. L.M. Yu, G.L. Xu, F.E.H. Tay and C. Iliescu, "Theoretical analysis and experiment research of a novel DEP chip with 3-D silicon electrodes," 1st Int. Embedded and System Conf. (IEHSC), Singapore, 10-13 May 2005.
96. B. Chen, J. Miao, C.K. Lim, F.E.H. Tay and C. Iliescu, "Dynamics behaviors of high-G MEMS accelerometer

incorporated with novel micro-flexures," 1st Int. Embedded and System Conf. (IEHSC), Singapore, 10-13 May 2005.

97. G.L. Xu, F.E.H. Tay, V. Samper and C. Iliescu, "Multi-channel biotelemetry system using microcontroller with UHF transmit function," 1st Int. Embedded and System Conf. (IEHSC), Singapore, 10-13 May 2005.
98. C. Iliescu, G.L. Xu, F.E.H. Tay and V. Samper, "Dielectrophoretic chip with bulk silicon electrodes," Proc. of Smart Materials, Nano-, and Micro-Smart Systems (*SPIE vol. 5651*), pp. 254-264, Sydney, Australia, 12-15 Dec.r 2004. *(in SPIE library)*.
99. G.L. Xu, F.E.H. Tay, C. Iliescu and V. Luar, "A self-priming and bubble tolerant micro-pump for sample preparation biochip system," Proc. of Smart Materials, Nano-, and Micro-Smart Systems (*SPIE vol. 5651*), pp. 363-370, Sydney, Australia, 12-15 Dec.2004 (*in SPIE library*).
100. C. Iliescu, F.E.H. Tay, J.M. Miao and M. Avram, "Wafer level packaging of pressure sensor using SU8 photoresist," Proc. of Smart Materials, Nano-, and Micro-Smart Systems (*SPIE vol.5649*), pp. 297-305, Sydney, Australia, 12-15 December 2004. (*in SPIE library*).
101. J. Jing, C. Iliescu, K.L. Tan and F.E.H. Tay, "Optimization of the profile of nanotips for thermoelectric coolers," Japan- Singapore Symposium on Nanoscience & Nanotechnology, Singapore, 1 – 4 Nov. 2004.
102. K.L. Tan, P. Padmanabhan, C. Iliescu and F.E.H. Tay, "Nanotips analysis for microcooling systems," Japan-Singapore Symposium on Nanoscience & Nanotechnology, Singapore, 1 – 4 Nov. 2004.
103. C. Iliescu, M. Avram, J. Miao, F.E.H. Tay and G.L. Xu, "Two masks process for high aspect ratio inertial sensors with adjustable range," Proc. of Int. Semiconductor Conf. - CAS2004 (IEEE), vol. 1, pp. 263-266, Sinaia, Romania, 4-6 Oct. 2004 *(in IEEE-library)* - (*best paper award)*
104. M. Avram, C. Brezeanu, C. Iliescu, O. Neagoe, "Contribution to development of power SiC devices," Proc. of Int. Semiconductor Conf. - CAS2004 (IEEE), vol. 2, pp. 303-306, Sinaia, Romania, 4-6 Oct. *2004 (in IEEE-library)*.
105. C. Iliescu, G.L Xu, V. Samper, F.E.H. Tay, "Silicon dielectrophoretic chip for cell manipulation," Proc. of the 1st Int. Conf. on Bioengineering and Nanotechnology (ICBN), pp.10, Singapore 26-29 Sept.2004.
106. C. Iliescu, F.E.H. Tay, J. Jing, J. Miao, "Deep wet etching of Pyrex glass for Bio-MEMS devices," Proc. of the 1st Int. Conf. on Bioengineering and Nanotechnology (ICBN), pp. 28, Singapore 26-29 Sept. 2004.
107. Y.Q. Fu, H.J. Du, C. Iliescu, "TiNi shape memory alloy micro-pumps," Proc. of the 1st Int. Conf. on Bioengineering and Nanotechnology (ICBN), pp. 32, Singapore, 26-29 Sept. 2004.
108. J. Jing, C. Iliescu, F.E.H. Tay, K.L. Tan, "Optimization of the microneedles profile using deep RIE isotropic etching," Proc. of the 1st Int. Conf. on Bioengineering and Nanotechnology (ICBN), Singapore, pp. 19, Singapore, 26-29 Sept. 2004.
109. C. Iliescu, G.L. Xu, V. Samper, F.E.H. Tay, "2.5-dimensional silicon dielectrophoretic cell manipulation biochip," Proc. Eurosensors XVIII, pp. 277-278, Roma, Italy, 13-15 Sept. 2004.
110. M. Avram, C. Iliescu, O. Neagoe, C. Voitinicu, S. Nedelcu, "Bipolar magnetic microsensor for longitudinal and transversal magnetic fields," Proc. Eurosensors XVIII, pp. 514-515, Roma, Italy, 13-15 Sept. 2004.
111. J. Jing, C. Iliescu, F.E.H. Tay, J. Miao, T.T. Sun, "Characterization of masking layers for deep wet etching of glass in an improved HF/HCl solution," Proc. Thin Film 2004 and Nanotech 2004, pp. 152-153, Singapore, 13-17 July 2004.
112. M. Carp, C. Iliescu, J. Miao F.E.H. Tay, D.P. Poenar, "Analyze of high boron doping from spin on diffusants source," Proc. Thin Film 2004 and Nanotech 2004, pp. 170-171, Singapore, 13-17 July 2004.
113. C. Iliescu, K.L. Tan, F.E.H. Tay, H.T. Chua, J. Miao, "Nanotips cold-end contact for microcooling systems," Proc. Thin Film 2004 and Nanotech 2004, pp. 277-278, Singapore, 13-17 July 2004.
114. G.L. Xu, C. Iliescu, V. Samper, F.E.H. Tay, "Dead volume free cell manipulation chip using Silicon as electrodes," Proc. of the 3rd Scientific Meeting of Biomedical Engineering Society, Singapore, 21 May 2004.
115. C. Iliescu, T.T. Sun, M. Carp. J. Miao, "Characterization of p++ layer and its application on bulk and surface MEMS Devices," Proc. FSISE 2004, pp. 107-108, Guangzhou, China, 14-16 May 2004.
116. C. Iliescu, J. Miao, F.E.H. Tay, "Low-cost wafer level packaging of MEMS devices," Proc. 5th Electronics Packaging Technology Conf. (ETPC 2003), pp. 287-290, Singapore, 10-12 Dec. 2003 *(in IEEE-library)*.
116. C. Iliescu, T.T. Sun, J. Miao, F.E.H. Tay, "Fabrication process of a capacitive microphone with p++ diaphragm and silicon bonded top-plate," Proc. ICMAT 2003, Singapore, 7-10 Dec. 2003.
117. C. Iliescu, J. Miao, M. Avram, "Fabrication of chip scale piezorezistive pressure sensors using screen-printed glass frit packaging," Proc. ICMAT 2003, Singapore, 7-10 Dec. 2003.
118. T.T. Sun, J. Miao, C. Iliescu, J.B. Sun, H. Zhu, "Study on sidewall roughness of Silicon microtrench with a time multiplexed Inductively Coupled Plasma etcher," Proc. ICMAT 2003, Singapore, 7-10 Dec. 2003.
119. G.L Xu, F.E.H. Tay, Y.Z. Lao, C. Iliescu, Y.H. Yu, V. Luar, D. Hartono, Y.Y. Lee, "A dielectrophoresis-

based bio- sample preparation," Proc. ICMAT 2003, Singapore, 7-10 Dec. 2003.

120. C. Iliescu, J. Miao, F.E.H. Tay, "Chip scale packaging in glass of pressure sensors," Proc, Micro System Technologies Conf., pp. 110-116, Munich, Germany, 7-8 Oct. 2003.
121. J. Miao, C. Iliescu, "A reliable fabrication process for capacitive microphones with sensitivity trimming," Proc. Micro System Technologies Conf., pp. 328-333, Munich, Germany, 7-8 Oct. 2003.
122. K.L. Tan, C. Iliescu, F.E.H. Tay, H.T. Chua, "Nanotips for thermoelectric cooling fabricated using anisotropic etching of silicon," 1st Nanoforum Workshop, Sinaia, Romania, 5-7 Oct. 2003*(in IEEE-library)*
123. C. Iliescu, M. Avram, J. Miao, F.E.H. Tay, "Characterization of p++ layer fabrication using a liquid source for MEMS applications," Proc. of Int. Semiconductor Conf. – CAS 2003 (IEEE) - 26th edition, vol. 2, pp. 281-284, Sinaia, Romania, 30 Sept.- 1 Oct. 2003 *(in IEEE-library)*.
124. M. Avram, C. Codreanu, G. Brezeanu, C. Voitincu, C. Iliescu, "Contributions to the development of MOSFET SiC technologies," Proc. of Int. Semiconductor Conf. – CAS 2003 (IEEE) - 26th edition, vol. 2, pp. 271-274, Sinaia, Romania, 30 September - 1 Oct. 2003 *(in IEEE-library)*.
125. M. Avram, S. Nedelcu, C. Codreanu, C. Iliescu, "Optimized integrated magnetic field sensor," Proc. Eurosensors XVII, pp. 997-1000, Guimaraes, Portugal, 21-24 Sept. 2003.
126. C. Iliescu, J.M. Miao, "Fabrication at wafer level in glass and silicon of MEMS devices," Proc. of MME'02, pp.79-82, Sinaia, Romania, 6-9 Oct. 2002.
127. C. Iliescu, J. Miao, D.P. Poenar, T.T. Sun, "Thick and thin diaphragms fabrication using gold - silicon eutectic," Proc. of Int. Semiconductor Conf. – CAS 2002 (IEEE) - 25th ed., vol.1, pp. 189-193, Sinaia, Romania, 9-12 Oct. 2002. *(in IEEE-library)*
128. C. Iliescu, J. Miao, "Wafer level packaging solution for pressure sensors," Proc. of Design Test Integration and Packaging (DTIP) Conference, Cannes, France, 5-8 May 2002.
129. C. Iliescu, J. Miao, "Flip-chip solutions for pressure sensor packaging," Proc. of Int. Conf. on Advance Packaging (APACK 2001), pp. 67-72, Singapore, 5-7 Dec. 2001.
130. C. Iliescu, D.P. Poenar, J. Miao, "Aluminum-Silicon and Gold-Silicon eutectics: new opportunities for MEMS technologies," Proc. MRS Conf., pp. B5.5, Boston, USA, 26-29 Nov. 2001.
131. C. Iliescu, V. Tache, G. Simion, "Flip-chip solutions for pressure sensor packaging," CNOE, Pitesti, Romania, 26-27 Oct.1998.
132. M. Avram, G. Simion, C. Iliescu, M. Simion, "An optimised planar Hall microsensor," Proc. of Int. Semiconductor Conf.– CAS'97 (IEEE), 20th ed., vol. 2, pp. 523-526, Sinaia, Romania, 14-16 Oct. 1997 *(in IEEE-library)*.
133. C. Iliescu**,** S. Negru, P. Sterian, T. Despa, "Integrated pressure sensor with silicon diaphragm. Mathematical model for diaphragm study," Proc. Int. Semiconductor Conf. -CAS'91, 14th edition, pp. 33-36, Sinaia, Romania, 13-15 Oct. 1991.
134. R. Chisleag, C. Iliescu, "Application of holographic interferometer in vibration study," New Technologies'90, May 1990.
135. V. Tache, C. Iliescu, "Mathematical model for laser heating process," Modelling in Science and Technology, Bucharest, Romania, Oct. 1989.
136. C. Iliescu, "Design elements for laser bonding technology," CNETAC'88, Bucharest, Romania, Dec. 1988.

PATENTS

1. C. Iliescu and A. Paunescu, "Integrated pressure sensor with silicon diaphragm. Fabrication process and packaging solution", (RO 114192 B1).
2. C. Iliescu, G.L Xu and F.E.H. Tay, "Biochip for sorting and lysing biological samples" EU & US granted
3. C. Iliescu and B. Chen, "Ultrasonic enhanced microneedles array for transdermal drug delivery" EU & US granted

Grants

PI or Co-PI for different projects finalized with a relevant number of publications as follows:

• **"Paper-based microfluidic platform for the concentration and amplification of nucleic acids"** UEFISCCDI PN-III-P4-ID-PCE-2020-1886, 240.000€, 2021 – 2023 -6 papers

"**Advanced techniques and increasing performance in the early detection of SARS-CoV-2 virus"** UEFISCCDI 720.000€, 2020-2021. -6 papers

• **"Microfluidic Factory for Assisted Self-Assembly of Nanosystems"** (MICRONANOFAB), UEFISCCDI 1.500.000 2010-2014, eight (8) journal papers.

• "**Development of a Human Liver-Vascular Cell-Based Microfluidic Platform to Evaluate AntiAntherogenic Effects of Nutraceutical"**, ASTAR, Singapore 200.000€, 2014-2016, 4 journal papers.
• **"Kinetically-controlled assembly of DNA-based nanoparticles by microfluidic device for gene delivery applications"** 20.000€, French grant (PICS2014) 2014-2016; 4 journal papers.
• **"Microfluidic Directed Self-Assembly of Viromimetic Nanomachines"**, Bilateral Singapore-France (Merlion program), ASTAR/ANR 20.000€, 2010-2011; 2 journal papers.
• **"Microneedle Array for Transdermal Drug Delivery"** ASTAR, Singapore 1.000.000€ 2008-2012, 6 journal papers, one (1) patent.
• **"Dielectrophoresis Cell-Bead Binding for Gene Extraction**" ASTAR, Singapore 2003-2008 1.000.000€, 18 journal papers, one (1) patent.

Mentor for Post-Doctoral Project
"**Solid-phase isothermal amplification based on nanostructured Si platform for rapid detection of pathogens"**
PN-III-P1-1.1-PD-2021-0516 2022 - 2024