

## PUBLICATION LIST

### JOURNAL PAPERS

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

1. 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 (IF=6.393; WOS:000500370900013, 7 pages)
2. 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*, vol. 12, issue 12, 2019, art. no e201900065 (IF=3.763, Not yet WOS, 8 pages)
3. F.S. Iliescu, D.P. Poenaru, 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 65**) (IF=2.531; WOS:000483884200001, 44 pages)
4. 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, (IF=2.426; WOS:000475350100044; 29 pages)
5. F.S. Iliescu, W.J. Sim, H. Heidari, D.P. Poenaru, 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.(IF=2.754; WOS:000471293900010 ; 21 pages)
6. 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. (IF=8.428; WOS:000461894400005; 10 pages)
7. 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. (IF=1.513; WOS:000435585500005; 8 pages)
8. 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. (IF=2.426; WOS:000424126600039; 17 pages)
9. 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. (IF=4.011; WOS:000414415000028; 16 pages)
10. 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. (IF=6.393; WOS:000408277500053; 5 pages)
11. 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. (IF=2.531 ; WOS:000404340600010; 11 pages)
12. 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. (IF=0.356; WOS:000394185300002, 13 pages)
13. 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. (IF=0.356; WOS:000394185300004; 7 pages)
14. 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 174**) (IF=17.2; WOS:000378739000005; 12 pages)
15. 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. (IF=4.511; WOS:000377925300015; 10 pages)
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21. 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 (IF=3.986; WOS:000338275100009; 11 pages).
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- 85 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.
- 86 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.
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- 88 J. Wei, K.J. Leck, Ph. Gaughwin, M. Avram and C. Iliescu, "Low stress nanoporous SiN<sub>x</sub> membrane for cell culture," *Int. J. Computational Materials Science and Surface Engineering*, vol. 2, Nos. 3/4, September 2009, pp. 268-281.
- 89 L. Yu, F.E.H. Tay, D.P. Poenaru, C. Iliescu, "Using contact imprinting for adhesive wafer-to-wafer bonding," *SPIE Newsroom*, April 2007.
- 90 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.
- 91 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.
- 92 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.
- 93 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.
- 94 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.
- 95 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.
- 96 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.
- 97 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.
- 98 C. Iliescu, J. Miao and M. Avram, "Fabrication of chip scale piezoresistive pressure sensors using screen-printed glass frit packaging," *Int. J. of Comp. Eng. Sci. (IJCES)*, vol. 4, no. 2, June 2003, pp. 343-346.
- 99 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.
- 100 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. Poenaru, Chapter 5: "*PECVD amorphous silicon carbide ( $\alpha$ -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. Poenaru, 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. Dascalescu), 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, G. Tresset, M. Ni, C. Marculescu, DNA compaction using microfluidics for gene therapy" 1<sup>st</sup> Bucharest Polymer Conference, 6-8 June 2018, Bucharest, Romania, (*plenary speaker*)
2. C. Iliescu, G. Tresset, M. Ni, C. Marculescu, "Strategies in microfluidic self-assembly of nanoparticles" 8<sup>th</sup> IEEE International Nanoelectronics Conference (INEC), 3-5 January 2018, Kuala Lumpur, Malaysia (*invited speaker*).
3. 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*).
4. 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*)
5. C. Iliescu, F. Yu, H. Yu, "Microfluidic-assisted constrained spheroids for long term cell culture," presented at 7<sup>th</sup> Australia-New Zealand Nano-Microfluidics Symposium, 21-23 March 2016, Brisbane, Australia (*invited speaker*).
6. C. Iliescu, F. Yu, H. Yu, "Microfluidic platforms for drug screening," presented at 38<sup>th</sup> Int. Semiconductor Conf., Sinaia, Romania, 12-14 October 2015, (*invited speaker*).
7. C. Iliescu, C. Marculescu, A. Salonen, M. Ni, G. Tresset, "Nanoparticles synthesis by electrostatic interaction in microfluidic devices," presented at 36<sup>th</sup> Int. Semiconductor Conf., Sinaia, Romania, 14-16 October 2013, (*invited speaker*).
8. 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*).
9. C. Iliescu, "Transdermal drug delivery as a microfabrication process," Singapore Symposium on Drug Delivery System, 13-15 May 2001 (*keynote speaker*)
10. C. Iliescu, M. Avram, B. Chen, A. Avram, A. Popescu, V. Dumitrescu, D.P. Poenaru, A. Sterian, P. Sterian "Considerations regarding residual stress in thin films PECVD depositions," The 2<sup>nd</sup> International Colloquium "Physics of Materials" 7-9 October 2010, Bucharest, Romania (*invited speaker*)
11. C. Iliescu, "Recent trends in dielectrophoresis," presented at Int. Conf. on Microelectronics, Devices and Materials (MIDEM'10), Slovenia, 29-30 September 2010, (*invited speaker*)
12. C. Iliescu, "Transdermal drug delivery: a microfabrication approach," Dynamic nanosystems: from concept to applications (workshop) –Bucharest Romania, 21-24 September 2010 (*invited speaker*).
13. C. Iliescu, B. Chen, J. Wei, Z. Yue "Transdermal drug delivery: microfabrication insights, " presented at 32<sup>nd</sup> Int. Semiconductor Conf., Sinaia, Romania, 12-14 October 2009, (*invited speaker*).
14. 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*).
15. 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*).
16. 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*).
17. 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*).
18. 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 30<sup>th</sup> Int. Semiconductor Conf., Sinaia, Romania, 15-17 October 2007, (*invited speaker*).
19. 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*).
20. 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*).
21. 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*).

22. 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*).
23. 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*) -
24. 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*).
25. C. Iliescu and F.E.H. Tay, "Wet etching of glass," presented at Int. Semiconductor Conf. – CAS 2005 28<sup>th</sup> Edition, and Sinaia, Romania, 2-4 October 2005 (*plenary speaker*)

*Invited Seminars:*

26. C. Iliescu, "Microfluidic-assisted constrained spheroids cell culture" Laboratoire de Physique des Solides, Université Paris-Saclay, CNRS, 19 July 2019, France
27. C. Iliescu, "Microfluidics in cell culture and gene therapy"- Northwestern Polytechnic University, 2 Nov. 2018, Xi'an, P.R. China.
28. C. Iliescu, "DNA compaction using hydrodynamic flow focusing" – Yale-NUS College, 18 August 2017, Singapore.
29. C. Iliescu, "Self-assembled nanoparticle using microfluidics"- Babes- Bolyai University, 28 March 2017. Cluj-Napoca, Romania.
30. C. Iliescu, "Microfluidics in Silicon and Glass: Technologies and Applications," SIMTech Microfluidics Seminar, 6 March 2013, Singapore
31. C. Iliescu, "Microfluidics in drug discovery," University of Ljubljana, 19 Oct. 2012, Slovenia
32. C. Iliescu, "Dielectrophoresis in microfluidic devices," Laboratoire de Physique des Solides, Université Paris-Sud, CNRS, 20 April 2011, France
33. C. Iliescu, "BioMEMS research in IBN," National Institute of Research and Development in Microtechnology (IMT), 27 Sept. 2010, Romania.
34. C. Iliescu, "Transdermal drug delivery: microfabrication insights," invited talk, "Materials week"- Republic Polytechnic, 12 May 2009,
35. 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. 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.
2. R. B. Abdul Razak, S. S. M. Wong, S. Gunaseelan, C. Iliescu, J. J.E. Chua, "Microfluidics to study the role of intracellular transport in neuromuscular junction formation" 3<sup>rd</sup> Health technology Symposium, 1-2 July 2019, Singapore
3. C. Iliescu, F. Yu, H. Yu, "On-chip incubator for constrained liver spheroids" 5<sup>th</sup> International Conference "Implementation of Microreactor Technology in Biotechnology" - IMTB 2019, 19-22 May 2019, Cavtat, Croatia.
4. C. Iliescu, F.S. Iliescu, F. Yu, "Liver-on-a-chip", Spring Meeting of the Academy of Romanian Scientists, 23-24 March 2017, Bucharest.
5. G. Tresset, C. Iliescu, C. Mărculescu, S. Venkataraman, B. Languille, and M. Ni, "Microfluidics-direct assembly of DNA-based nanoparticles," The 4<sup>th</sup> International Soft Matter Conference (ISMC2016), 12-16 September 2016, Grenoble, France.
6. C. Iliescu, C. Mărculescu, M. Ni, B. Languille, S. Venkataraman, and G. Tresset, "A microfluidic method for fine control of surfactant-DNA nanoparticles" 6<sup>TH</sup> ANZNMF Symposium, 31 March– 2 April 2015, Melbourne, Victoria, Australia.
7. 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
8. C. Iliescu, C. Maraculescu, D. Resnik, and D. Vrtacnik, "Characterization of TEOS thin film deposition in PECVD reactors," Proc. of 50<sup>th</sup> Int. Conf. on Microelectronics, Devices and Materials (MIDEM'14), Slovenia, 8-10 Oct. 2014, Ljubljana, Slovenia, pp. 199-202.
9. C. Iliescu, G. Tresset, C. Marculescu, A. Salonen and M. Ni, "Libraries of surfactant-polyelectrolyte nanoparticles by hydrodynamic flow focusing," 3<sup>rd</sup> NanoToday Conference 8-11 Dec. 2013, Singapore.
10. C. Iliescu, G. Tresset, C. Marculescu, M. Ni, A. Salonen, "Surfactant-Polyelectrolyte nanoparticles fabricated using microfluidic devices," 1<sup>st</sup> IBN Int. Symposium, 11-13 Jan. 2013, Singapore.
11. F.S. Iliescu, A. P. Bobei, P. Sterian, C. Iliescu, "A parallel between transdermal drug delivery and microtechnology," 3<sup>rd</sup> Int. Col. "Physics of Materials" (PM-3), 15-16 Nov. 2012, University "Politehnica" of Bucharest, Romania

12. C. Maraculescu, C. Balan, G. Tresset, M. Ni, C. Iliescu “Synthesis of polymeric nanoparticles using hydrodynamic focusing in a microfluidic device,” Proc. of the 48<sup>th</sup> Int. Conf. on Microelectronics, Devices and Materials (MIDEM’12), Slovenia, 19-21 Sept. 2012, Otocec, Slovenia, pp. 199-202.
13. F.S. Iliescu, C. Iliescu, “Approaching transdermal drug delivery as a micro-fabrication process,” Proc. of the 48<sup>th</sup> Int. Conf. on Microelectronics, Devices and Materials (MIDEM’12), Slovenia, 19-21 Sept. 2012, Otocec, Slovenia pp. 194-198.
14. C. Balan, C. Marculescu, C. Iliescu, “Micro-PIV measurements for hydrodynamic characterizations of microfluidic flows,” Proc. of the 35<sup>rd</sup> Int. Semiconductor Conf., Sinaia, Romania, 11-13 Oct. 2012, pp. 247-250 (*in IEEE-library*).
15. 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,” 9<sup>th</sup> World Biomaterial Congress, 1-5 June 2012, Chendu, China
16. C.M. Balan, M. Avram, A. Avram, G. Xu, R. Deng, C. Iliescu, “A 3D chaotic microfluidic mixer,” 22<sup>nd</sup> edition of Micromechanics and Microsystem Technology European Workshop, 19-22 June 2011, Tonsberg, Norway.
17. 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
18. 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 2<sup>nd</sup> Conf. on Advances in Microfluidics and Nanofluidics & Asia-Pacific International Symposium on Lab on Chip, Singapore, 5-7 Jan. 2011.
19. M. Avram, A.M. Avram, A. Bragaru, B. Chen, D.P. Poenaru, C. Iliescu, “Low stress PECVD amorphous Silicon Carbide for MEMS applications,” Proc. of the 33<sup>rd</sup> Int. Semiconductor Conf., Sinaia, Romania, 11-13 Oct. 2010 (*in IEEE-library*).
20. C. Iliescu, G. Tresset, G. Xu, “Cell sorting in a dielectrophoretic device with asymmetric electrodes,” 32<sup>nd</sup> Int. Semiconductor Conf., Sinaia, Romania, 12-14 Oct. 2009.
21. 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.
22. B. Chen, C. Iliescu, “Microfabricated silicon carbide membrane as cell culture platform,” 1<sup>st</sup> Nanotoday Conference, Singapore, 2-5Aug. 2009.
23. 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*)
24. J. Wei, B. Chen, D.P. Poenaru, Y.Y. Lee and C. Iliescu, “Low-stress PECVD amorphous silicon carbide ( $\alpha$ -SiC) layers for biomedical application,” Smart Materials, Nano-, and Micro-Smart Systems 2008, Melbourne, Australia, 9-12 Dec. 2008. (*in SPIE library*)
25. 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.
26. M. Avram, C. Iliescu, M. Volmer, F.S. Iliescu, A.M. Avram, “Microfluidic device for biocells manipulation and measurement,” Proc. of the 31<sup>st</sup> Int. Semiconductor Conf., Sinaia, Romania, 12-15 Oct. 2008, vol. 1, pp. 91-94 (*in IEEE-library*).
27. M. Avram, C. Iliescu, M. Volmer and A. Avram, “Magnetic microfluidic device for biological analysis in lab-on-a-chip systems,” Proc. of the 34<sup>th</sup> International Conference on Micro- and Nano-Engineering, Athens, Greece, 15–19 Sept. 2008, paper no. 543.
28. E. Barbarini, M. Avram, A.R. Sterian, G. Xu and C. Iliescu, “Theoretical and experimental considerations regarding magnetic separation in microfluidic devices,” 8<sup>th</sup> Word Congress on Computational Mechanics (WCCM8) and 5<sup>th</sup> European Congress on Computational Applied Sciences and Engineering, Venice, Italy, 30 June-4 July 2008.
29. 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.
30. C. Iliescu, J. Wei, P.L. Ong, B. Chen, “Low stress PECVD SiN<sub>x</sub> process for biomedical application,” Proc. of the 30<sup>th</sup> Int. Semiconductor Conf., Sinaia, Romania, 15-17 Oct. 2007, vol. 1, pp. 139-142 (*in IEEE-library*).
31. M. Avram, M.A. Avram, A. Bragaru, A. Ghieu, C. Iliescu, “Plasma surface modification of polymer substrate for selective hydrophobic control,” 30<sup>th</sup> Int. Semiconductor Conf., Sinaia, Romania, 15-17 Oct. 2007, vol. 1, pp. 91-94 (*in IEEE-library*).
32. H. Taylor, B.T. Chen, C. Iliescu, D. Boning, “Computationally efficient modelling of pattern dependencies in the micro-embossing of thermoplastic polymers,” 33<sup>rd</sup> Int. Conf. on Micro- and Nano-Engineering, 23-26 Sept. 2007, Copenhagen, Denmark.
33. B. Chen, C. Iliescu, and F.E.H. Tay, “Study of PECVD silicon carbide films and their BioMEMS applications,” SBE’s 3<sup>rd</sup> International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.

34. P. Gaughwin, C. Iliescu, J. Wei, A. Thomson, B. Lim, "Microfluidic culture platforms (MCPs) for compartmentalized neuronal cell culture," SBE's 3<sup>rd</sup> International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.
35. 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 3<sup>rd</sup> International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.
36. 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 3<sup>rd</sup> International Conference on Bioengineering and Nanotechnology (ICBN), 12-15 Aug. 2007, Singapore.
37. 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 14<sup>th</sup> International Conference on Solid State Sensors, Actuators and Microsystems- "Transducers'07 & Eurosensors XXI"- 10-14 June 2007, Lyon, France, pp.1837-1840.
38. 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.
39. G. Tresset and C. Iliescu "On-chip electrofusion of loaded biomimetic containers," 51<sup>st</sup> Biophysical Society Annual Meeting, 3-7 March 2007, Baltimore, Maryland, USA.
40. 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.
41. J. Wei, P.L. Ong, F.E.H. Tay and C. Iliescu, "A new fabrication method of low stress PECVD SiN<sub>x</sub> layers for biomedical application," Thin Films 2006, Singapore, 11-15 Dec. 2006.
42. 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.
43. 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.
44. 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*)
45. C. Iliescu, D.P. Poenaru, 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*)
46. 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*)
47. 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*)
48. L. Yu, C. Iliescu, F.E.H. Tay and B. Chen, "SU8 adhesive bonding using contact imprinting," Proc. of 29<sup>th</sup> edition of Int. Semiconductor Conf. – CAS 2006, vol. 1, pp. 189-192, Sinaia, Romania, 27-29 Sept. 2006 (*in IEEE-library*).
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