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## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Flow rate-controlled pipetting for microfluidics: second-generation flexible hydraulic reservoir (FHRv2)**  
Atay A., Topuz A., Sariarslan B., YILDIRIM E., Charmet J., Couling K., ÇETİN B.  
MICROFLUIDICS AND NANOFUIDICS, vol.25, no.1, 2021 (Journal Indexed in SCI)
- II. **Modeling and fabrication of electrostatically actuated diaphragms for on-chip valving of MEMS-compatible microfluidic systems**  
Atik A. C. , Ozkan M. D. , Ozgur E., Külah H., Yıldırım E.  
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.30, no.11, 2020 (Journal Indexed in SCI)
- III. **A Novel Microfluidic Method Utilizing a Hydrofoil Structure to Improve Circulating Tumor Cell Enrichment: Design and Analytical Validation**  
Özkayar G., Mutlu E., Şahin Ş., Demircan Yağın Y., Töral T., Külah H., Yıldırım E., Zorlu Ö., Özgür E.  
MICROMACHINES, vol.11, no.11, 2020 (Journal Indexed in SCI)
- IV. **Multiplex enumeration of Escherichia coli and Salmonella enteritidis in a passive capillary microfluidic chip**  
Dogan U., Kasap E. N. , Sucularli F., Yıldırım E., Tamer U., Cetin D., Suludere Z., Boyacı İ. H. , Ertas N.  
ANALYTICAL METHODS, vol.12, pp.3788-3796, 2020 (Journal Indexed in SCI)
- V. **Low-Cost Microfabrication Tool Box**  
Charmet J., Rodrigues R., YILDIRIM E., Challa P. K. , Roberts B., Dallmann R., Whulanza Y.  
MICROMACHINES, vol.11, no.2, 2020 (Journal Indexed in SCI)
- VI. **Investigation of process-affected zone in ultrasonic embossing of microchannels on thermoplastic substrates**  
Sucularli F., ARIKAN M. A. S. , YILDIRIM E.  
JOURNAL OF MANUFACTURING PROCESSES, vol.50, pp.394-402, 2020 (Journal Indexed in SCI)
- VII. **Fast fluorometric enumeration of E. coli using passive chip**  
KASAP E. N. , DOĞAN Ü., ÇOĞUN F., YILDIRIM E., BOYACI İ. H. , ÇETİN D., SULUDERE Z., TAMER U., ERTAŞ N.  
JOURNAL OF MICROBIOLOGICAL METHODS, vol.164, 2019 (Journal Indexed in SCI)
- VIII. **Numerical study on effects of computational domain length on flow field in standing wave thermoacoustic couple**  
MERGEN S., YILDIRIM E., TÜRKOĞLU H.  
CRYOGENICS, vol.98, pp.139-147, 2019 (Journal Indexed in SCI)
- IX. **SERS-based ultrafast and sensitive detection of luteinizing hormone in human serum using a passive microchip**  
Gjergjizi B., Çoğun F., YILDIRIM E., ERYILMAZ M., Selbes Y., SAĞLAM N., TAMER U.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.269, pp.314-321, 2018 (Journal Indexed in SCI)
- X. **A novel zero-dead-volume sample loading interface for microfluidic devices: flexible hydraulic reservoir (FHR)**  
Hatipoğlu U., ÇETİN B., YILDIRIM E.  
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.28, no.9, 2018 (Journal Indexed in SCI)
- XI. **Analysis and testing of a contraction-and-expansion micromixer for micromilled microfluidics**  
YILDIRIM E.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS,

- vol.23, no.10, pp.4797-4804, 2017 (Journal Indexed in SCI)
- XII. **Implementation and characterization of an absorption filter for on-chip fluorescent imaging**  
YILDIRIM E., ARPALI Ç., Arpali S. A.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.242, pp.318-323, 2017 (Journal Indexed in SCI)
- XIII. **Investigation on replication of microfluidic channels by hot embossing**  
Cogun F., Yıldırım E., Arıkan M. A. S.  
MATERIALS AND MANUFACTURING PROCESSES, vol.32, pp.1838-1844, 2017 (Journal Indexed in SCI)
- XIV. **Phaseguide assisted liquid lamination for magnetic particle-based assays**  
Phurimsak C., YILDIRIM E., Tarn M. D. , Trietsch S. J. , Hankemeier T., Pamme N., Vulto P.  
LAB ON A CHIP, vol.14, no.13, pp.2334-2343, 2014 (Journal Indexed in SCI)
- XV. **Phaseguides as tunable passive microvalves for liquid routing in complex microfluidic networks**  
YILDIRIM E., Trietsch S. J. , Joore J., van den Berg A., Hankemeier T., Vulto P.  
LAB ON A CHIP, vol.14, no.17, pp.3334-3340, 2014 (Journal Indexed in SCI)
- XVI. **A normally closed electrostatic parylene microvalve for micro total analysis systems**  
Yildirim E., ARIKAN M. F. , KÜLAH H.  
SENSORS AND ACTUATORS A-PHYSICAL, vol.181, pp.81-86, 2012 (Journal Indexed in SCI)
- XVII. **Electrostatic energy harvesting by droplet-based multi-phase microfluidics**  
Yildirim E., KÜLAH H.  
MICROFLUIDICS AND NANOFUIDICS, vol.13, no.1, pp.107-111, 2012 (Journal Indexed in SCI)
- XVIII. **Analysis and characterization of an electrostatically actuated in-plane parylene microvalve**  
Yildirim E., KÜLAH H.  
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.21, no.10, 2011 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Modeling and Analysis of a Microfluidic Capillary Valve**  
YILDIRIM E.  
Politeknik Dergisi, vol.20, pp.487-494, 2017 (Other Refereed National Journals)
- II. **MEMS Malzeme Karakterizasyonu için Bütünlesik bir Elektrostatik Mikro Bükülme Test Yapısı Tasarımı ve Gerçekleştirilmesi**  
YILDIRIM E., AKIN T., ARIKAN M. A. S.  
Cankaya University Journal of Science and Engineering, vol.9, pp.9-23, 2012 (Other Refereed National Journals)

## Books & Book Chapters

- I. **Lab on a chip: A versatile integration with spectroscopic techniques**  
Eryılmaz M., Yıldırım E., Tamer U.  
in: Handbook on Miniaturization in Analytical Chemistry, Chaudhery Mustansar Hussain, Editor, Elsevier Science, Oxford/Amsterdam , Amsterdam, pp.139-152, 2020
- II. **Otomatik Üretim Hatları**  
Yıldırım E.  
in: Otomasyon, Üretim Sistemleri ve Bilgisayarla Tümlşik İmalat, Mustafa Yurdakul, Yusuf Tansel İç, Editor, Nobel Yayın Dağıtm, Ankara, pp.441-471, 2016
- III. **Otomatik Montaj Sistemleri**  
Yıldırım E.  
in: Otomasyon, Üretim Sistemleri ve Bilgisayarla Tümlşik İmalat, Mustafa Yurdakul, Yusuf Tansel İç, Editor, Nobel Yayın Dağıtm, Ankara, pp.472-496, 2016
- IV. **Grup Teknoloji ve Hüresel İmalat**  
Yıldırım E.

in: Otomasyon, Üretim Sistemleri ve Bilgisayarla Tümüleşik İmalat, Mustafa Yurdakul, Yusuf Tansel İç, Editor, Nobel Yayın Dağıtım, Ankara, pp.497-530, 2016

**V. İmalat Sistemlerine Genel Bakış**

Yıldırım E.

in: Otomasyon, Üretim Sistemleri ve Bilgisayarla Tümüleşik İmalat, Mustafa Yurdakul, Yusuf Tansel İç, Editor, Nobel Yayın Dağıtım, Ankara, pp.353-365, 2016

**VI. Tek İstasyonlu İmalat Hücreleri**

Yıldırım E.

in: Otomasyon, Üretim Sistemleri ve Bilgisayarla Tümüleşik İmalat, Mustafa Yurdakul, Yusuf Tansel İç, Editor, Nobel Yayın Dağıtım, Ankara, pp.366-389, 2016

**VII. Elle İşletilen Montaj Hatları**

Yıldırım E.

in: Otomasyon, Üretim Sistemleri ve Bilgisayarla Tümüleşik İmalat, Mustafa Yurdakul, Yusuf Tansel İç, Editor, Nobel Yayın Dağıtım, Ankara, pp.390-440, 2016

**VIII. Mikroakışkan Sistemlere Yönelik Gelecek Tahminleri**

YEŞİL ÇELİKTAŞ Ö., ÇETİN B., YILDIRIM E.

in: Mikroakışkan Teknolojilerin Temelleri Ve Uygulamaları, Özlem Yeşil Çeliktaş, Editor, Ege Üniversitesi Basımevi, pp.199-205, 2016

**IX. Mikroakışkan Sistemlerin Üretimi**

ÇETİN B., YILDIRIM E., AKAY Ş.

in: Mikroakışkan Teknolojilerin Temelleri Ve Uygulamaları, ÖZLEM YEŞİL ÇELİKTAŞ, Editor, Ege Üniversitesi Basımevi, pp.27-54, 2016

## **Refereed Congress / Symposium Publications in Proceedings**

**I. 2D PHASE-FIELD SIMULATION AND EXPERIMENTAL VALIDATION OF DROPLET FORMATION IN A FLOW-FOCUSING JUNCTION**

Atik A. C. , Yıldırım E., Külah H.

24th International Conference on Miniaturized Systems for Chemistry and Life Sciences, 4 - 09 October 2020, pp.222-223

**II. NUMERICAL SIMULATION AND EXPERIMENTAL ANALYSIS OF INERTIAL CELL FOCUSING IN A CONTRACTION-EXPANSION ARRAY (CEA) MICROCHANNEL**

Atik A. C. , Yıldırım E., Külah H.

24th International Conference on Miniaturized Systems for Chemistry and Life Sciences, 4 - 09 October 2020, pp.220-221

**III. Dielectrophoretic Detection Of Imatinib Resistance In K562 Cells Using A Lab-On-A-Chip System**

Demircan Yalçın Y., TORAL T. B. , Sukaş S., Yıldırım E., Zorlu Ö., GÜNDÜZ U., KÜLAH H.

MicroTAS 2019, Basel, Switzerland, 27 - 31 October 2019

**IV. FABRICATION OF ORGAN-ON-A-CHIP SYSTEMS AND BIOPRINTING**

YILDIRIM E.

8th BBBB International Conference on Pharmaceutical Sciences, Çeşme, Turkey, 14 - 16 October 2019

**V. CHARACTERIZATION OF EMBEDDED MICROCHANNELS FABRICATED BY SLA**

Yıldırım E., Yaman U., Arıkan M. A. S.

4th INTERNATIONAL CONGRESS ON 3D PRINTING (ADDITIVE MANUFACTURING) TECHNOLOGIES AND DIGITAL INDUSTRY, Antalya, Turkey, 11 - 14 April 2019

**VI. GENERATION AND CHARACTERIZATION OF HYDROGEL MICRODROPLETS AS BIOINK FOR BIOPRINTING APPLICATIONS**

Sucularlı F., Yıldırım E., Arıkan M. A. S.

4th INTERNATIONAL CONGRESS ON 3D PRINTING (ADDITIVE MANUFACTURING) TECHNOLOGIES AND DIGITAL INDUSTRY, Antalya, Turkey, 11 - 14 April 2019, pp.416-419

- VII. **Enumeration of Escherichia coli based on SERS technique in a passive type microfluidic chip**  
Doğan Ü., Kasap E. N. , Çoğun F., Yıldırım E., Çetin D., Suludere Z., Boyacı İ. H. , Ertaş N., Tamer U.  
ISOPS-12 Ankara, Turkey, Ankara, Turkey, 26 - 29 June 2018, pp.99-100
- VIII. **Determination of Electrical Heterogeneities in Cell Lines by Dielectrophoresis Utilizing High Conductivity Buffers**  
Demircan Yalçın Y., Töral T. B. , Sukas S., KÜLAH H., YILDIRIM E., Zorlu Ö.  
ICNMM 2018, 10 - 13 June 2018
- IX. **Fluorescent on-chip imager by using a tunable absorption filter**  
Arpali Ç., Yıldırım E., Altay Arpali S.  
The European Conference on Lasers and Electro-Optics, Munich, Germany, 25 - 29 June 2017, pp.3
- X. **Microchip Based Determination of Bacteria by in-Chip Sandwich Immunoassay**  
Kasap E. N. , Çoğun F., Yıldırım E., Doğan Ü., Boyacı İ. H. , Çetin D., Suludere Z., Tamer U., Ertaş N.  
10th Aegean Analytical Chemistry Days, Çanakkale, Turkey, 29 September - 02 October 2016, pp.31-0
- XI. **Chip-Based Immunomagnetic Separation of Human Chorionic Gonadotropin**  
Ahi E. E. , Gümüştas A., Çiftçi H., Çağlayan M. G. , Selbes Y. S. , Çoğun F., Yıldırım E., Tamer U.  
10th Aegean Analytical Chemistry Days, Çanakkale, Turkey, 29 September - 02 October 2016, pp.361
- XII. **Simultaneous Detection of Two Different Bacteria Using QDs and MNPs**  
Doğan Ü., Kasap E. N. , Çoğun F., Yıldırım E., Çetin D., Suludere Z., Boyacı İ. H. , Ertaş N., Tamer U.  
10th Aegean Analytical Chemistry Days, Çanakkale, Turkey, 29 September - 02 October 2016, pp.365-0
- XIII. **On-Chip Insulated Micro Well Array for Cell Viability Assays**  
Parsian M., Atik A. C. , Özkan M. D. , GÜNDÜZ U., KÜLAH H., Özgür E., YILDIRIM E.  
EMBL Conference: Microfluidics 2016, 24 - 26 July 2016
- XIV. **A Novel Cell Sorting Structure to Improve Droplet Based Single Cell Encapsulation**  
Atik A. C. , Özkan M. D. , KÜLAH H., Özgür E., YILDIRIM E.  
EMBL Conference: Microfluidics 2016, 24 - 26 July 2016
- XV. **Effect of Preheating on Channel Geometry and Surface Texture in Fabrication of Plastic Microfluidic Chips by Ultrasonic Hot Embossing**  
ÇOĞUN F., YILDIRIM E.  
EMBL Conference: Microfluidics 2016, 24 - 26 July 2016
- XVI. **MaSter: UV-C Sterilizer for Magistral Medication Preparation in Pharmacies**  
Totuk O. H. , YILDIRIM E.  
8. Mühendislik ve Teknoloji Sempozyumu, Turkey, 14 - 15 May 2015
- XVII. **Optimization of Hot Embossing Process for Fabrication of Microfluidic Devices**  
Ziyara A., ÇOĞUN F., Varol C., Totuk O. H. , YILDIRIM E.  
8. Mühendislik ve Teknoloji Sempozyumu, Turkey, 14 - 15 May 2015
- XVIII. **Phaseguides: A Toolbox for Passive Microfluidics**  
YILDIRIM E., Trietsch S. J. , Joore J., Hankemeier T., Vulto P.  
EMBL Conference: Microfluidics 2014, 23 - 25 July 2014
- XIX. **PHASEGUIDE ASSISTED LIQUID LAMINATION FOR MAGNETIC BEAD BASED ASSAYS**  
Phurimsak C., YILDIRIM E., Trietsch S. J. , Hankemeier T., Tarn M. D. , Pamme N., Vulto P.  
17th International Conference on Miniaturized Systems for Chemistry and Life Sciences, 27 - 31 October 2013
- XX. **A Reconfigurable Microfluidic Transmitarray Unit Cell**  
Erdil E., Topalli K., Zorlu Ö., Toral T., YILDIRIM E., KÜLAH H., AYDIN ÇİVİ H. Ö.  
7th European Conference on Antennas and Propagation, 8 - 12 April 2013
- XXI. **A Droplet based Multi-Drug Screening System Controlled with Electrostatic Microvalves**  
YILDIRIM E., Özgür E., KÜLAH H.  
16th International Conference on Miniaturized Systems for Chemistry and Life Sciences, 28 October - 01 November 2012
- XXII. **Analysis and Testing of a Micromixer for Precision Milled Microchannel Networks**  
YILDIRIM E.  
EMBL Conference: Microfluidics 2012, 25 - 27 July 2012

- XXIII. **An electrostatically actuated parylene microvalve for lab on a chip applications**  
YILDIRIM E., ARIKAN M. A. S., KÜLAH H.  
16. International Conference on Solid State Sensors, Actuators and Micro Systems, 5 - 09 July 2011
- XXIV. **Design and Leakage Characterization of a Microvalve for Parylene Based Lab-on-a-Chip Systems**  
Yıldırım E., Arıkan M. A. S., Külâh H.  
4. Mühendislik ve Teknoloji Sempozyumu, Ankara, Turkey, 28 - 29 April 2011
- XXV. **An Electrostatic Parylene Microvalve for Lab-on-a-Chip Applications**  
Yıldırım E., Koyuncuoğlu A., Külâh H.  
15. Biyomedikal Mühendisliği Ulusal Toplantısı, Antalya, Turkey, 21 - 24 April 2010
- XXVI. **An electrostatic parylene microvalve for controlling in plane flow**  
YILDIRIM E., Koyuncuoğlu A., KÜLAH H.  
13. International Conference on Miniaturized Systems for Chemistry and Life Sciences, 1 - 05 November 2009