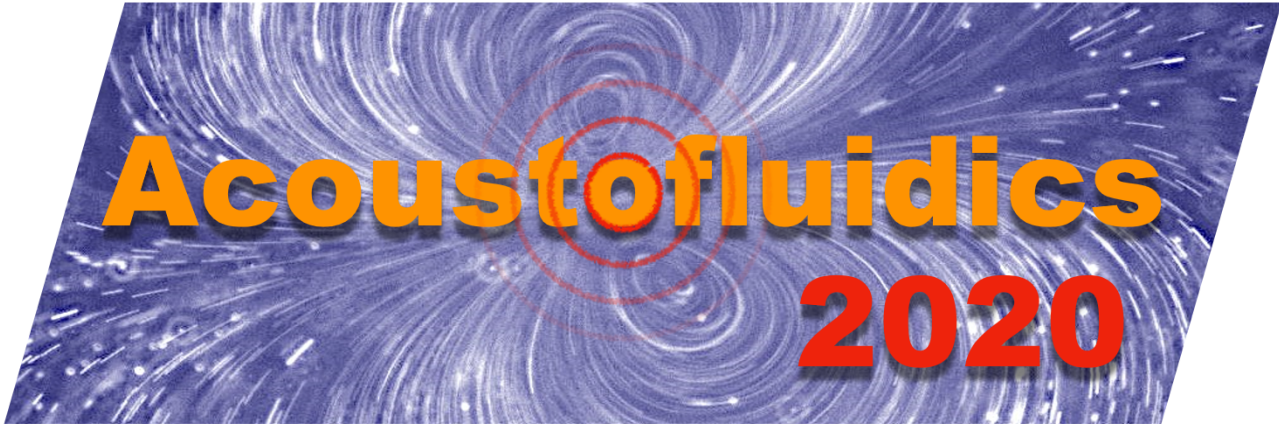


The banner features a blue background with a complex, swirling pattern of white and light blue lines, resembling fluid flow or sound waves. In the center, there are three concentric red circles. The text "Acoustofluidics" is written in a bold, orange, sans-serif font, and "2020" is written in a bold, red, sans-serif font to its right.

Acoustofluidics 2020

The banner has a blue background with a swirling pattern of white and light blue lines, similar to the one above. The text "26-27 August 2020" is in a bold, dark blue, sans-serif font, and "Virtual Conference" is in a bold, white, sans-serif font below it.

26-27 August 2020
Virtual Conference

Final Program

All times are US Eastern Daylight Time (EDT) - UTC/GMT - 4 hours

Wednesday, 26 August

08:00 - 08:05

Opening Remarks

Thomas Franke, *University of Glasgow, UK*

Henrik Bruus, *Technical University of Denmark, DENMARK*

Session 1 - Acoustic Devices

08:05 - 08:10

Session Introduction by Session Chairs

Richard Fu, *Northumbria University, UK*

Jürg Dual, *ETH Zürich, SWITZERLAND*

Invited Speaker

08:10 - 08:40

ACOUSTOFLUIDICS: MANIPULATING OBJECTS ACROSS 7 ORDERS OF MAGNITUDE

Tony Jun Huang

Duke University, USA

Contributed Talks

08:40 - 08:50

MICROSWIMMERS AS LIVING PROBES TO MEASURE THE ACOUSTIC ENERGY DENSITY IN ACOUSTOFLUIDIC DEVICES

Minji Kim¹, Rune Barnkob², and J. Mark Meacham¹

¹*Washington University, St. Louis, USA and*

²*Technical University of Munich, GERMANY*

08:50 - 09:00

A MULTINODAL ACOUSTIC TRAPPING UNIT WITH INCREASED CAPACITY AND THROUGHPUT FOR CAPTURE OF EXTRACELLULAR VESICLES

Axel Broman, Andreas Lenshof, Mikael Evander, Anson Ku,

Yvonne Ceder, Johan Malmström, and Thomas Laurell

Lund University, SWEDEN

09:00 - 09:10

MODELING AND EXPERIMENTAL EVALUATION OF A POLYMER-BASED ACOUSTOPHORESIS CHIP

Fabian Lickert¹, Mathias Ohlin², Henrik Bruus¹, and Pelle Ohlsson²

¹*Technical University of Denmark, DENMARK and*

²*AcouSort AB, SWEDEN*

09:10 - 09:20

CAPILLARY BRIDGE ACOUSTOFLUIDICS

Jeremy J. Hawkes¹, Sadaf Maramizonouz¹, Changfeng Jia²,

Mohammad Rahmati¹, Tengfei Zheng², Martin B. McDonnell³,

and Yong Qing Fu¹

¹*Northumbria University, UK, ²Xian Jiaotong University, CHINA, and*

³*Dstl Porton Down, UK*

- 09:20 - 09:30** **DROPLET GENERATION FROM STANDING SURFACE ACOUSTIC WAVE (SSAW) STABILIZED FLUIDIC MICROPATTERN**
Mehrzad Roudini¹, Dennis Niedermeier², Frank Stratmann²,
 and Andreas Winkler¹
¹SAWLab Saxony, GERMANY and
²Leibniz Institute for Tropospheric Research, GERMANY
- 09:30 - 09:40** **MICROFLUIDICS PLATFORM FOR PROTOCOL DEVELOPMENT VIA CAPACITIVE FLUID LEVEL MONITORING AND ACOUSTIC MIXING**
Yaqi Zhang¹, Muhsincan Sesen^{1,2}, Alex de Marco¹, and Adrian Neild¹
 Monash University, AUSTRALIA and ²Heriot-Watt University, UK

Flash Talks

- 09:40 - 09:44** **FABRICATION OF SURFACE ACOUSTIC WAVE (SAW) DEVICES USING DETACHABLE ELECTRODES BASED ON A FLEXIBLE PRINTED CIRCUIT BOARD (PCB)**
Roman Mikhaylov, Zhihua Xie, Aled Clayton, and Xin Yang
 Cardiff University, UK
- 09:44 - 09:48** **GALLIUM NITRIDE THIN FILM FOR ACOUSTIC TWEEZER**
Chao Sun¹, Huaixing Cang¹, and Xin Yang²
¹Northwestern Polytechnical University, CHINA and
²Cardiff University, UK
- 09:48 - 09:52** **ACOUSTICALLY DRIVEN MENISCUS MODES IN INKJET PRINTING**
 Martin van den Broek¹, Maaïke Rump¹, Roger Jeurissen²,
 Hans Reinten³, Detlef Lohse¹, Michel Versluis¹, Guillaume Lajoinie¹,
 and Tim Segers¹
¹University of Twente, NETHERLANDS,
²Eindhoven University of Technology, NETHERLANDS, and
³Canon Production Printing Netherlands B.V., NETHERLANDS
- 09:52 - 09:56** **DROPLET DEMULSIFICATION AT PARALLEL FLOW INTERFACE USING SOUND WAVES**
E. Hemachandran and Ashis Kumar Sen
 Indian Institute of Technology, Madras, INDIA
- 09:56 -10:00** **DROPLET IMPACT CONTROL BY SURFACE ACOUSTIC WAVES**
Mehdi H. Biroun¹, Mohammad Rahmati¹, Glen McHale¹, Mehdi Jangi²,
 Hamdi Torun¹, and Richard YongQing Fu¹
¹Northumbria University, UK and ²University of Birmingham, UK
- 10:00 -10:04** **DROPLET MERGING IN A PDMS MICRO-WELL DRIVEN BY SURFACE ACOUSTIC WAVES**
Sudeepthi Aremanda¹, Lelie Yeo², and Ashis Kumar Sen¹
¹Indian Institute of Technology, Madras, INDIA and
²RMIT University, AUSTRALIA

10:04 -10:08 **HIGH-THROUGHPUT TRIGGERED MERGING OF DROPLETS USING TRAVELLING SURFACE ACOUSTIC WAVES**
Vincent Bussiere¹, Aurélie Vigne^{1,2}, Andreas Link¹, John McGrath¹,
Aparna Srivastav¹, Esther Richter¹, Ziyun Wang¹,
Mustafa Zaimagaoglu¹, Jean-Christophe Baret², and Thomas Franke¹
¹University of Glasgow, UK and ²Université de Bordeaux, FRANCE

10:08 – 10:25 **Break (offline)**

Session 2 - Bio-Acoustic Systems

10:25 - 10:30 **Session Introduction by Session Chairs**
Peter Glynn-Jones, *University of Southampton, UK*
Thomas Franke, *University of Glasgow, UK*

Invited Speaker

10:30 -11:00 **SIMPLICITY OR COMPLEXITY: TRANSDUCERS AND INSTRUMENTATION STRATEGIES FOR ACOUSTOFLUIDIC MANIPULATION OF CELLS AND BIOFUNCTIONALIZED BEADS**
Martin Wiklund, Karl Olofsson, and Björn Hammarström
Royal Institute of Technology, SWEDEN

Contributed Talks

11:00 -11:10 **CELL ADHESION, MORPHOLOGY, AND METABOLISM VARIATION VIA ACOUSTIC EXPOSURE WITHIN MICROFLUIDIC CELL HANDLING SYSTEMS**
Citsabehsan Devendran, James Carthew, Jessica E. Frith,
and Adrian Neild
Monash University, AUSTRALIA

11:10 -11:20 **TWO-DIMENSIONAL PATTERNING OF SWIMMING CELLS USING HYBRID ACOUSTIC WAVE DEVICES**
Mingyang Cui¹, Philip V. Bayly¹, Susan K. Dutcher²,
and J. Mark Meacham¹
¹Washington University, St. Louis, USA and
²Washington University School of Medicine, St. Louis, USA

11:20 -11:30 **ACOUSTIC SEPARATION OF VIABLE AND DEAD CELLS USING HIGH-DENSITY MEDIUM**
Karl Olofsson, Björn Hammarström, and Martin Wiklund
KTH Royal Institute of Technology, SWEDEN

11:30 -11:40 **MOTILITY-BASED SPERM SELECTION USING SURFACE ACOUSTIC WAVES**
Junyang Gai, Reza Nosrati, and Adrian Neild
Monash University, AUSTRALIA

11:40 -11:50 **ADVANCED CELL MANIPULATION WITH VORTEX-BASED ACOUSTICAL TWEEZERS**
Michael Baudoin^{1,2}, Jean-Louis Thomas³, Roudy Al Sahely¹, Jean-Claude Gerbedoen¹, Zhixiong Gong¹, Aude Sivery¹, Olivier Bou Matar¹, Nikolay Smagin¹, and Alexis Vlandas¹
¹Université de Lille, FRANCE, ²Institut Universitaire de France, FRANCE, and ³Sorbonne Université, FRANCE

11:50 -12:00 **A MICROFLUIDIC PLATFORM FOR ACOUSTIC PARTICLE FOCUSING IN HYDROGEL DROPLETS**
Maria Tenje, Hannah Pohlitz, and Anna Fornell
Uppsala University, SWEDEN

Flash Talks

12:00 -12:04 **GENERATING ORDERED CARDIAC TISSUE MODELS USING ACOUSTIC CELL PATTERNING**
Ekaterina Pchelintseva¹, Ilona Sunyovzsky¹, James P.K. Armstrong¹, Alice Agliano¹, Bruce W. Drinkwater², Cesare Terracciano¹, and Molly M. Stevens¹
¹Imperial College London, UK and ²University of Bristol, UK

12:04 -12:08 **A PORTABLE ACOUSTOFLUIDIC BASED CHEMILUMINESCENCE BIOSENSOR**
Xian Chen, Bohua Liu, Wei Pang, and Xuexin Duan
Tianjin University, CHINA

12:08 -12:12 **HIGHLY EFFICIENT ACOUSTOPHORETIC SINGLE CELL-SUPERNATANT SEPARATION INSIDE NANOLITER DROPLETS**
Michael Gerlt¹, Dominik Haidas², Alexandre Ratschat¹, Philipp Suter¹, Petra Dittrich², and Jürg Dual¹
¹ETH Zürich, SWITZERLAND and ²ETH Zürich, Basel, SWITZERLAND

12:12 -12:16 **CHARTING CELL PROPERTIES THROUGH THEIR ACOUSTOPHORETIC MIGRATION IN A GRADIENT OF DENSITY AND COMPRESSIBILITY**
Mahdi Rezayati Charan and Per Augustsson
Lund University, SWEDEN

12:16 -12:20 **REFRACTION OF ACOUSTIC VORTEX BEAMS IN AN INHOMOGENEOUS MEDIUM**
Xudong Fan and Likun Zhang
University of Mississippi, USA

12:20 -12:24 **STREAMING IN A KUNDT'S TUBE OF AN ARBITRARY DIAMETER**
Alen Pavlic and Jürg Dual
ETH Zürich, SWITZERLAND

12:24 -12:28

**REVERSAL OF INTERPARTICLE RADIATION FORCES ACTING ON
MICRO PARTICLES INDUCED BY BULK ACOUSTIC STANDING
WAVES IN A MICROCHANNEL**

Sazid Zamal Hogue and Ashis Kumar Sen

Indian Institute of Technology, Madras, INDIA

12:28

Adjourn for the Day

Thursday, 27 August

08:00 - 08:05

Opening Remarks

Thomas Franke, *University of Glasgow, UK*

Henrik Bruus, *Technical University of Denmark, DENMARK*

Session 3 - Physical Acoustics

08:05 - 08:10

Session Introduction by Session Chairs

Per Augustsson, *Lund University, SWEDEN*

Henrik Bruus, *Technical University of Denmark, DENMARK*

Invited Speaker

08:10 - 08:40

ACOUSTIC RADIATION FORCE AND TORQUE ON NONSPHERICAL SMALL PARTICLES

Glauber T. Silva

Universidade Federal de Alagoas, BRAZIL

Contributed Talks

08:40 - 08:50

REPELLER AND ATTRACTOR VORTICES GENERATED IN SESSILE DROPLETS BY SWIRLING SURFACE ACOUSTIC WAVES

Shuren Song, Jia Zhou, and Antoine Riaud

Fudan University, CHINA

08:50 - 09:00

FLEXIBLE/BENDABLE ACOUSTOFLUIDICS BASED ON ZnO/Al SHEET SURFACE ACOUSTIC WAVES

Yong Wang^{1,2}, Ran Tao^{2,3}, Qian Zhang¹, Jin Xie¹, and Yong Qing Fu²

¹*Zhejiang University, CHINA*, ²*Northumbria University, UK*, and

³*Shenzhen University, CHINA*

09:00 - 09:10

THERMAL-GRADIENT-INDUCED FAST CONVECTION IN ACOUSTOFLUIDIC DEVICES

Wei Qiu¹, Jonas H. Jørgensen², Enrico Corato¹, Henrik Bruus², and Per Augustsson¹

¹*Lund University, SWEDEN* and

²*Technical University of Denmark, DENMARK*

09:10 - 09:20

THEORY OF TEMPERATURE-DEPENDENT EFFECTS IN ACOUSTOFLUIDICS INCLUDING THERMOVISCOUS BOUNDARY LAYERS

Jonas Helboe Jørgensen and Henrik Bruus

Technical University of Denmark, DENMARK

- 09:20 - 09:30** **THEORY OF ACOUSTIC STREAMING AND ACOUSTIC RADIATION FORCE OF A SOLID PARTICLE IN A VISCOELASTIC FLUID**
Jonas Fankhauser, Alexander A. Doinikov, and Jürg Dual
ETH Zürich, SWITZERLAND
- 09:30 - 09:40** **MICROSTREAMING INDUCED BY AN ACOUSTICALLY EXCITED GAS BUBBLE - EXPERIMENTS AND COMPARISON TO THEORY**
Sarah Cleve, Gabriel Regnault, Alexander A. Doinikov, Cyril Mauger, Philippe Blanc-Benon, and Claude Inserra
University of Lyon, FRANCE

Flash Talks

- 09:40 - 09:44** **POLY(N-ISOPROPYLACRYLAMIDE) MICROGELS AS SOLUBLE MARKERS FOR VISUALIZATION OF ACOUSTIC ENERGY ABSORPTION IN AQUEOUS SOLUTIONS**
Amin Rahimzadeh and Regine von Klitzing
Technische Universität Darmstadt, GERMANY
- 09:44 - 09:48** **ACOUSTIC CHARACTERIZATION OF POLYDIMETHYLSILOXANE (PDMS) FOR MICROSCALE ACOUSTOFLUIDICS**
Guangyao Xu and Xiasheng Guo
Nanjing University, CHINA
- 09:48 - 09:52** **A NUMERICAL STUDY OF THE COUPLING LAYER BETWEEN A PIEZOELECTRIC BULK TRANSDUCER AND A GLASS DEVICE**
William N. Bodé and Henrik Bruus
Technical University of Denmark, DENMARK
- 09:52 - 09:56** **ALGEBRAIC RADIATION FORCE EXPANSIONS BEYOND KING, YOSIOKA AND KAWASIMA, AND GOR'KOV, AND RELATED INVESTIGATIONS OF SHAPE DYNAMICS**
Philip L. Marston
Washington State University, USA
- 09:56 -10:00** **ANALYTICAL PREDICTION OF ACOUSTIC RADIATION FORCES IN SOFT-WALLED MICROCHANNELS DRIVEN BY STANDING SURFACE ACOUSTIC WAVES**
Nitesh Nama¹ and Rune Barnkob²
¹*University of Michigan, USA and*
²*Technical University of Munich, GERMANY*
- 10:00 -10:04** **AN ANGULAR SPECTRUM BASED FORMULA OF THE 3D ACOUSTIC RADIATION TORQUE APPLIED ON A PARTICLE OF ARBITRARY SIZE AND SHAPE BY AN ARBITRARY ACOUSTIC FIELD**
Zhixiong Gong¹ and Michael Baudoin^{1,2}
¹*University of Lille, FRANCE and*
²*Institut Universitaire de France, FRANCE*

- 10:04 -10:08** **CLUSTER STRUCTURATION OF PARTICLE MIXTURE IN MULTI-NODE ACOUSTIC LEVITATION WITH OPTICAL EXCLUSION**
Nathan Jeger-Madiot, Mauricio Hoyos, and Jean-Luc Aider
ESPCI, FRANCE
- 10:08 – 10:25** **Break (offline)**

Session 4 - Acoustic Manipulation

- 10:25 – 10:30** **Session Introduction by Session Chairs**
 Citsabehsan “Saab” Devendran, *Monash University, AUSTRALIA*
 Rune Barnkob, *Technical University München, GERMANY*

Invited Speaker

- 10:30 -11:00** **THE ACOUSTIC HOLOGRAM AND ITS APPLICATION FACILITATED BY THE SPATIAL MODULATION OF ULTRASOUND**
Peer Fischer^{1,2}, Zhichao Ma¹, Kai Melde¹,
 Athanasios G. Athanassiadis¹, and Tian Qiu^{1,2}
¹Max Planck Institute for Intelligent Systems, GERMANY and
²University of Stuttgart, GERMANY

Contributed Talks

- 11:00 -11:10** **LONG-DISTANCE MICROPARTICLE STEERING USING GIGAHERTZ ACOUSTIC STREAMING**
Xinyi Guo^{1,2,3}, Zhichao Ma³, Rahul Goyal³, Moonkwang Jeong¹,
 Wei Pang², Peer Fischer³, Xuexin Duan², and Tian Qiu¹
¹University of Stuttgart, GERMANY, ²Tianjin University, CHINA, and
³Max Planck Institute for Intelligent Systems, GERMANY
- 11:10 -11:20** **NUMERICAL SIMULATION OF ACOUSTIC STREAMING GENERATED BY GHz AIN-THIN-FILM TRANSDUCERS ON AIN-SiO₂-BRAGG-REFLECTOR SUBSTRATES**
André G. Steckel and Henrik Bruus
Technical University of Denmark, DENMARK
- 11:20 -11:30** **EFFECTS OF PARTICLE SHAPE ON ACOUSTOPHORETIC MANIPULATION OF NON-SPHERICAL MICROPARTICLES IN ULTRASONIC STANDING WAVES**
Amir Tahmasebipour, Matthew R. Begley, and Carl D. Meinhart
University of California, Santa Barbara, USA

- 11:30 -11:40** **ACOUSTIC CELL PATTERNING FOR MUSCULOSKELETAL TISSUE ENGINEERING**
James P.K. Armstrong¹, Sirli Treumuth¹, Bruce W. Drinkwater², and Molly M. Stevens¹
¹Imperial College London, UK and ²University of Bristol, UK
- 11:40 -11:50** **THREE-DIMENSIONAL MANIPULATION OF PARTICLE BY ACOUSTIC TWISTED FOCUSING BEAM**
Xiangxiang Xia, Feiyan Cai, and Hairong Zheng
Chinese Academy of Sciences, CHINA
- 11:50 -12:00** **SIMULATED AND EXPERIMENTAL DEMONSTRATIONS OF ACOUSTIC HOLOGRAM ENHANCED PHASED ARRAYS FOR MANIPULATION**
Luke Cox¹, Kai Melde², Anthony Croxford¹, Peer Fischer^{2,3}, and Bruce Drinkwater¹
¹University of Bristol, UK, ²Max Plank Institute for Intelligent Systems, GERMANY, and ³University of Stuttgart, GERMANY

Flash Talks

- 12:00 -12:04** **ACOUSTOFLUIDIC BIDIRECTIONAL MICROPUMP**
Yuan Gao, Mengren Wu, Yang Lin, Weiqi Zhao, and Jie Xu
University of Illinois, Chicago, USA
- 12:04 -12:08** **CONTROLLED MANIPULATION AND ACTIVE SORTING OF PARTICLES INSIDE MICROFLUIDIC CHIPS USING BULK ACOUSTIC WAVES**
Kyriacos Yiannacou and Veikko Sariola
Tampere University, FINLAND
- 12:08 -12:12** **ACOUSTIC TRAPPING AROUND OBSTACLES AND CORNERS**
Asier Marzo¹, Marco A.B. Andrade², María A. Cuellar¹, Jaime Goñi¹, Ryuji Hirayama³, and Diego Martínez³
¹Universidad Pública de Navarra, SPAIN,
²Universidade de São Paulo, BRAZIL, and
³University College London, UK
- 12:12 -12:16** **ACOUSTIC PARTICLE TRAPPING IN A SPHERICAL MICROCHAMBER**
Bettina Sailer, Rune Barnkob, and Oliver Hayden
Technical University of Munich, GERMANY
- 12:16 -12:20** **ACOUSTIC EXTRACTION AND TRAPPING OF A DROPLET FROM A LIQUID-LIQUID INTERFACE**
Robert Lirette, Joel Mobley, and Likun Zhang
University of Mississippi, USA

12:20 -12:24 **MICROPARTICLE PATTERNING ON BENDABLE AND FLEXIBLE SAW DEVICES**
Sadaf MaramiZonouz, Mohammad Rahmati, and Richard Yongqing Fu
Northumbria University, UK

12:24 -12:28 **SONOLITHOGRAPHY AS A TOOL FOR IN-AIR PARTICLE MANIPULATION AND SURFACE PATTERNING USING BULK ULTRASONIC STANDING WAVES**
Jenna M. Shapiro¹, Bruce W. Drinkwater¹, Adam W. Perriman¹, and Mike Fraser²
¹*University of Bristol, UK* and ²*University of Bath, UK*

Closing Remarks and Announcement of Acoustofluidics 2021

12:28 -12:40 Thomas Franke, *University of Glasgow, UK*
Henrik Bruus, *Technical University of Denmark, DENMARK*

12:40 **Conference Adjourns**

Abstract-Only Presentations

Acoustic Devices

ACOUSTO-MECHANICALLY ENHANCED OSTEMER-GLASS POLYMER HYBRID: TOWARDS CHEAPER ACOUSTOFLUIDIC DEVICES
Karl Olofsson, Elin Forss, Björn Hammarström, and Martin Wiklund
KTH Royal Institute of Technology, SWEDEN

MICROFLUIDIC FUNCTIONALITIES AND WIRELESS SENSING USING SURFACE ACOUSTIC WAVE ACTUATOR AND METAMATERIAL-BASED RESONATOR ON A SINGLE PLATFORM
Shahrazad Zahertar¹, Ran Tao^{1,2}, Hamdi Torun¹, Pep Canyelles-Pericas³, and Richard Y.Q. Fu¹
¹*Northumbria University, UK*, ²*Shenzhen University, CHINA*, and ³*University of Twente, NETHERLANDS*

REDUCTION OF TAYLOR-ARIS DISPERSION BY LATERAL ACOUSTIC STREAMING
Pierre Gelin, Dominique Maes, and Wim De Malsche
Vrije Universiteit Brussel, BELGIUM

TWO-DIMENSIONAL MXENES EXFOLIATED AND SPIN-COATED USING SURFACE ACOUSTIC WAVE FOR GAS SENSING
Zerong Chen, Ran Tao, and JingTing Luo
Shenzhen University, CHINA

Bio-Acoustic Systems

A BEAD-BASED ACOUSTOFLUIDIC PLATFORM FOR TIME-CONTROLLED ENZYME REACTIONS IN DROPLETS

Zhenhua Liu, Anna Fornell, and Maria Tenje
Uppsala University, SWEDEN

ACOUSTIC LEVITATION OF *LEISHMANIA* PARASITES

Abelino Vargas^{1,2}, Diana C. Ochoa¹, Marcela Camacho^{1,2}, and Itziar González³
¹*National University of Colombia, Bogotá, COLOMBIA*,
²*International Physics Center (CIF), COLOMBIA*, and
³*CSIC Spanish National Research Council, SPAIN*

ANALYSIS OF A MICROPILLAR BASED QUARTZ CRYSTAL MICROBALANCE SENSOR

Siqi Ji and Hongwei Sun
University of Massachusetts, Lowell, USA

SORTING OF SAME-SIZED CELLS IN TWO-STAGE MICROCHANNEL VIA ACOUSTOFLUIDICS: A NUMERICAL ANALYSIS

Arash Mahboubidoust, Abas Ramiar, Kurosh Sedighi, and Donya Shahani
Babol Noshirvani University of Technology, IRAN

Physical Acoustics

ANALYZING PHYSICAL FIELDS AND PARTICLE MOTIONS INFLUENCED BY DIFFERENT DESCRIPTIONS OF PDMS IN THE MODEL OF SAW-PDMS ACOUSTOFLUIDICS

Zhengyang Ni and Xiasheng Guo
Nanjing University, CHINA

DEFECTS IN A NEW PERIODIC STRUCTURE FORMED BY TWO DIFFERENT SIDE BRANCHES

Mohamed El Malki
Mohammed First University, MOROCCO

DYNAMIC COATING OF ONE LIQUID BY ANOTHER BY EMPLOYING THE ACOUSTOWETTING PHENOMENON

Avital Reizman and Ofer Manor
Technion - Israel Institute of Technology, ISRAEL

MODELING OF ACOUSTIC ENHANCED ELECTROCHEMICAL POLISHING PROCESSES

Johannes Landskron, Sabrina Tietze, Conrad Wolf, and Klaus Stefan Drese
Coburg University of Applied Sciences and Arts, GERMANY

A MULTI-CHANNEL PROGRAMMABLE AMPLIFIER FOR HIGH VOLTAGE HIGH FREQUENCY TRANSDUCER EXCITATION

Hiep X. Cao^{1,2}, Han-sol Lee^{1,2}, Dae W. Jung², Byungjeon Kang², Jong-Oh Park^{1,2}, and Chang-Sei Kim^{1,2}

¹*Chonnam National University, KOREA and*

²*Korea Institute of Medical Microrobotics, KOREA*

ACOUSTOPHORETIC MANIPULATION OF PARTICLES IN IMPEDANCE MISMATCHED SYSTEMS

Amal Nath and Ashis K. Sen

Indian Institute of Technology, Madras, INDIA

CONTROL OF A BULK ACOUSTIC WAVE MICRO-CHANNEL THROUGH FREQUENCY SHIFTING AND ITS APPLICATION TO CELL RECONCENTRATION

Ludovic Bellebon^{1,2}, Déborah François², Mauricio Hoyos¹, and Jean-Luc Aider¹

¹*ESPCI Paris, FRANCE and* ²*Aenitis Technologies, FRANCE*

DISPENSING AND MANIPULATION OF FEMTOLITRE DROPLETS BY INKJET NOZZLE

Dege Li¹, Bingfang Huang¹, Yi Cao¹, Chao Zheng¹, Yonghong Liu¹, and Yanzhen Zhang^{1,2}

¹*China University of Petroleum, CHINA and*

²*Swinburne University of Technology, AUSTRALIA*

ROBOTIC MICROFINGERS: ACOUSTIC ASSEMBLY AND MAGNETIC MANIPULATION

Xiaolong Lu^{1,2}, Hui Shen¹, and Ying Wei¹

¹*Nanjing University of Aeronautics and Astronautics, CHINA and*

²*Max-Planck Institute for Intelligent Systems, GERMANY*

WASHING ELECTROPORATED CELLS USING SURFACE ACOUSTIC WAVE (SAW)

Fangda Wu¹, Mao Mao², Fan Yuan², Ming Hong Shen¹, and Xin Yang¹

¹*Cardiff University, UK and* ²*Duke University, USA*