Microfluidics2012

PROGRAM

Status:	**02.12.2012**
O:	**Long Oral Presentation (15 min + 5 min discussion)**
P:	**Short Oral Presentation + Poster (5 min, 4-5 slides, discussion at Poster only!)**

Monday, 3 December 2012

08:00 Registration (Coffee Break while Registration takes place)

10:00 Conference Opening

	Auditorium
10:00	**Conference Opening**
	S. Colin, G.L. Morini & J.J. Brandner
10:05	**Welcome from SHF**
	D. Loudiere, President of SHF
10:20	**Welcome from KIT**
	Prof. Dr. R. Dittmeyer, KIT
10:35	**Welcome of the City of Heidelberg**
	E. Gund, Representative of the City of Heidelberg
10:45	**Official Opening**
	Statistics, Technical Info
	S. Colin, G.L. Morini & J.J. Brandner

Monday, 3 December 2012

	Auditorium	Operon	Flex Lab A
	Plenary 1		
	Session Chair: Panagiota Angeli		
11:00	[256] A. Demello		
	Droplet-Based Microfluidics For High-Throughput Experimentation		

	Session 1A			Session 1B			Session 1C	
	Session Chair: Arjan Frijns			**Session Chair: Leslie Yeo**			**Session Chair: Lucien Baldas**	
11:45	[135] S. Cargou, M.-A. Mader, H. Kabbara, P. Joseph and A.-M. Gué	O	11:45	[22] G. Coupier, A. Farutin, C. Minetti, T. Podgorski and C. Misbah	O	11:45	[32] S. Khodaparast, N. Borhani and J. Thome	O
	Handling Flow through Innovative 3D Su8 Structures			Shape Diagram of Vesicles in Poiseuille Flow			Sudden Expansions in Circular Microchannels: Flow Dynamics and Pressure Drop	
12:05	[171] F. Durst and R. Sambasivam	O	12:05	[64] G. Peterat, S. Demming, H. Schmolke, A. Al-Halhouli, S. Büttgenbach, C.-P. Klages and R. Krull	O	12:05	[244] S. Drost and J. Westerweel	O
	The Extended Navier-Stokes-Equations Applied to Micro-Channel Flows			Multiphase microbioreactors: Scaling down hydrodynamic principles for biological process intensification			Rheometry in a microfluidic contraction flow device	
12:25	[236] J. Varfolomeeva, C. Müller, L. Riegger and H. Reinecke	O	12:25	[129] S. Haward, A. Jaishankar, M. Oliveira, M. Alves and G. McKinley	O	12:25	[144] F. Samouda, C. Barrot, S. Colin, L. Baldas and J. Brandner	O
	A New Method for Continuous and Automatic Sample Extraction in a Predefined Sequence			Extensional Flow of Hyaluronic Acid Solutions in an Optimized Microfluidic Cross-Slot Device			Molecular Tagging Velocimetry for Internal Gas Flows - from Continuum to Slightly Rarefied Regimes	
12:45	[69] M. Lorenzini	P	12:45			12:45	[94] R. Segura, C. Cierpka, M. Rossi, S. Joseph, H. Bunjes and C. Kähler	P
	The influence of viscous dissipation on thermal performance of microchannels with rounded corners						Optical temperature measurements for microflows using individual thermo-chromic liquid crystal (TLC) tracer particles	
12:50	[73] S. Dahms and U. Kampmeyer	P	12:50			12:50	[104] J. König, K. Tschulik, L. Büttner, M. Uhlemann and J. Czarske	P
	Flow restriction of micropumps for performance stabilisation in the low flow domain						Microscale Flow Imaging inside the Concentration Boundary Layer during Electro-Chemical Deposition Processes without Using Camera	
12:55	[221] F. Ingremeau and H. Kellay	P	12:55			12:55	[125] I. Ben Hassan, C. Lafforgue, A.M. Ayadi and P. Schmitz	P
	Polymer Stretching During Drop Formation						Coupling of local visualization and numerical approach for particle microfiltration optimization	
13:00	[132] K. Tsougeni, D. Papageorgiou, K. Ellinas, A. Glynou, T. Christoforidis, D.S. Mathioulakis, A. Tserepi and E. Gogolides	P	13:00			13:00	[138] D. Malsch, M. Kielpinski, N. Gleichmann, G. Mayer and T. Henkel	P
	Flow Study in Randomly-Rough Superhydrophilic, Sticky Hydrophobic, and Superhydrophobic Plasma-Nanotextured Micro-channels Using Micro-PIV and Pressure Drop Experiments						Application of Absorbance Imaging to Bretherton's Problem – 3D Droplet Shape Analysis in Glass Micro Channels	
13:10	**Lunch**							

	Session 2A			Session 2B			Session 2C	
	Session Chair: Janko Auerswald			**Session Chair: Wolfgang Hilber**			**Session Chair: Rainer Krull**	
14:30	[25] L. Davoust, Y. Fouillet, R. Malk and J. Theisen Electrowetting-induced stirring as a tool to manipulate biological sample in digital microfluidics.	O	14:30	[88] A. Talbi, R. Viard, A. Merlen, P. Pernod and V. Probrazhensky Design and elaboration of high sensitive and fast response thermal micro sensors compatible with gaz flow multi parameters measurements	O	14:30	[173] H. Ranchon and A. Bancaud Novel matrix-free Lab-on-Chip for fast and high-resolution biomolecule separation	O
14:50	[141] P. Fürjes, Z. Fekete, E. Holczer, E. Tóth, K. Iván and I. Bársony Chaotic mixing of particles in microfluidic systems	O	14:50	[102] C. Haiden, T. Wopelka, M. Jech, F. Keplinger and M. Vellekoop Visualisation of single sub-micron particles by light scattering in a microflow	O	14:50	[233] M. Cartas-Ayala and R. Karnik Forces Exerted During Cell Passage Through Narrow Channels.	O
15:10	[58] E. Weber, F. Keplinger and M. Vellekoop Optofluidic, contact-free 1x3 light-switch fabricated on a mono-layer device	P	15:10	[51] M.-A. Mader, S. Cargou, P. Joseph and A.-M. Gué Microfluidic system for submicronic particles separation in a mercury pollution sensor	P	15:10	[48] T. Rajabi, V. Huck, R. Ahrens, M.-C. Apfel, S.-E. Kim, S. Schneider and A. Guber Development of a microfluidic system based on polycarbonate as an artificial blood capillary vessel for medical application in cancer research	P
15:15	[95] A. Van Reenen, Y. Gao, A. De Jong, M. Hulsen, J. Den Toonder and M. Prins Accelerated Target Capture By Dynamic Magnetic Particle Actuation	P	15:15	[121] S. Van Pelt, J. Eggermont, A. Frijns and A. Dietzel Patterning of Super-hydrophobic Structures on Permeable Sensor Membranes	P	15:15	[75] C. Probst, A. Grünberger, W. Wiechert and D. Kohlheyer Screening of Escherichia coli on single-cell level by hyphenating microfluidic picoliter fermentation and optical tweezers	P
15:20	[163] A. Minakov, V. Rudyak, A. Lobasov, A. Yagodnitsina and A. Bilsky Experimental and numerical investigation of fluid mixing in T-shaped microchannel at high Reynolds numbers	P	15:20	[27] M. Riepen Impinging jets in Immersion Lithography-Characterization of local heat transfer coefficients	P	15:20		
15:25	[183] A. Al-Halhouli, M. Mohsen, M. Matar, A. Dietzel and S. Büttgenbach Design and Performance Evaluation of Passive Micromixers for Wide Range of Low Reynolds Number flows	P	15:25			15:25		
15:30	**Coffee Break**							
	Plenary 2							
	Session Chair: Andrew DeMello							
15:50	[206] L. Yeo, J. Friend, N. Glass and R. Shilton The Lab-on-a-Disc: Miniature Counterpart to the Lab-on-a-CD for Driving Chip-Based Microcentrifugation							

	Session 3A			Session 3B			Session 3C	
	Session Chair: Stéphane Colin			**Session Chair: Gian Luca Morini**			**Session Chair: Nam-Trung Nguyen**	
16:40			16:40	[149] C. Priest, J. Zhou, R. Sedev and J. Ralston	O	16:40	[13] N. Tarchichi, F. Chollet and J.-F. Manceau	O
				Liquid-liquid microfluidic extraction of metal ions from industrial grade leach solutions			Dispersed phase velocity controlled regime of micro-droplets generation in T-junction	
17:00	[101] A. Grünberger, S. Helfrich, C. Probst, K. Nöh, W. Wiechert and D. Kohlheyer	O	17:00	[217] P. Magaud, S. Geoffroy, M. Abbas, C. Lafforgue, S. Colin and L. Baldas	O	17:00	[35] J. Theisen and L. Davoust	O
	- Industrial Biotechnology meets Microfluidics - Disposable high-throughput single cell analysis device for industrially relevant bacterial strains			Particles in Micro-Channel Flows focused by Lateral Migration: Experimental and Numerical Characterization of the Process.			Gauging evaporation in a digital microsystem by electrowetting and interferometry: application to drop arrays.	
17:20	[89] C. David, Y. Lecoffre, J.-L. Dupuy, J. Lotters and P. Claudel	P	17:20	[146] D. Ferraro, T. Tòth, E. Locatelli, M. Pierno, G. Mistura, C. Semprebon and M. Brinkmann	P	17:20	[172] D. Hoang, V. Van Steijn, L. Portela, M. Kreutzer and C. Kleijn	O
	Micro Flow Meters Calibration Test Loop at CETIAT			Morphological transition of water droplets confined on rectangular posts			Numerical Study on the Breakup of Droplets in T-junction Microchannels	
17:25	[229] C. Haack and T. Tresch	P	17:25	[216] T. Chekifi, R. Khelfaoui, B. Dennai and S. Larej	P	17:40	[15] T. Lederer, B. Jakoby and W. Hilber	P
	System Identification for Microfluidic Components			Microdrops estimation of geometrical form			Electrowetting On a Non Ideal Two Layer Dielectric System	
17:30	[224] C. Schönecker, T. Baier and S. Hardt	P	17:30	[222] C. Lafforgue, P. Magaud, P. Schmitz, S. Geoffroy and M. Abbas	P	17:45	[124] S. Dutz, M. Kielpinski, D. Malsch, G. Mayer and T. Henkel	P
	The Flow of a Fluid in Cassie State along a Patterned Surface and its Effective Slip Length			Study of microfocusing potentialities to improve bioparticle microfiltration process			Acoustically switchable droplet ring resonators for droplet-based microfluidics	
17:35	[185] J.-B. Fleury, U. Schiller, S. Thutupalli, G. Gompper and R. Seemann	P	17:35	[46] C. Psyrraki and A. Gavriilidis	P	17:50	[126] Y. Karadag, A. Jonas and A. Kiraz	P
	Microfluidic method to specifically excite transversal phonon modes in one dimensional microfluidic crystal			Reactor Model and Procedure for Kinetics Evaluation of Gas- Liquid Reactions in Capillary Microreactors			Ultrahigh Resolution Spectroscopy and Size-Stabilization of Individual Microdroplets Using Tapered Optical Fiber Waveguides	
17:40	[50] A. Holl	O	17:40	[223] K. Yamamoto and S. Ogata	O	17:55	[127] M. Aas, A. Jonas and A. Kiraz	P
	Swagelok a worldwide resource for microfluid components			Effects of T-junction size on two-phase pressure drop of air- water slug flows in circular microchannels			An Optically Manipulated Microlaser Based on Dye-doped Emulsion Microdroplets	
18:00 - 21:00 Conference Get-Together @ the Posters								

Tuesday, 4 December 2012

08:00 Registration

	Auditorium			Operon			Flex Lab A	
	Session 4A			**Session 4B**			**Session 4C**	
	Session Chair: Dimitris Valougeorgis			**Session Chair: Pierre Perrier**			**Session Chair: Massimiliano Rossi**	
09:00	[55] T. Baier, S. Hardt, S. Herbert, S. Tiwari, A. Klar, G. Dupeux and D. Quere Leidenfrost Solids On Structured Surfaces	O	09:00	[38] C. Fräulin, G. Rinke and R. Dittmeyer Space-resolved Kinetic Studies of the Cyclohexane Oxidation under Process Conditions using In-situ Laser Raman Spectroscopy	O	09:00	[12] B. Satilmis, C. Schneider, M. Schnieper and I. Zhurminsky Low-cost Fabrication Process for Membranes in Microfluidic Systems Based on UV Casting	O
09:20	[214] V. Varade, A.M. Pradeep, S.V. Prabhu and A. Agrawal Experimental study of rarefied gas flow through tube with sudden expansion	P	09:20	[187] M. Heinisch, E. Lemaire, B. Caillard, I. Dufour and B. Jakoby A Study of Wire-based Resonators for Viscosity Sensing	O	09:20	[242] Z. Liu and H.C. Shum Fabrication of uniform multi-compartment particles using electro-spray technology for cell co-culture study	O
09:25	[218] T. Veltzke, M. Baune and J. Thöming The contribution of surface diffusion to gaseous mass flow rate in microscale ducts	P	09:40	[42] H. Kotari and M. Motosuke Particle Sorting by Optical Radiation Pressure with Low Energy Density	P	09:40		
09:30			09:45	[85] G. Rinke, A. Ewinger, A. Urban and S. Kerschbaum In-situ Measurement of the Temperature of Water in Microchannels using Laser Raman Spectroscopy	P	09:45		
09:35			09:50	[68] M. Kechadi and J. Gamby Free contact microchannel impedance through two antiparallel planar microelectrodes embedded on dielectric polyethylene terephthalate polymer	P	09:50		
10:00	**Coffee Break**							
	Plenary 3							
	Session Chair: Gian Luca Morini							
10:20	[255] S. Kandlikar Contact Line Dynamics of Liquid-Gas Interfaces over Confined/Structured Surfaces							

	Session 5A			Session 5B			Session 5C	
	Session Chair: Steffen Hardt			**Session Chair: David Newport**			**Session Chair: Thomas Wetzel**	
11:05	[181] M. Musterd, V. Van Steijn, M. Kreutzer and C. Kleijn	O	11:05	[93] T.T. Pham, Q.D. To, G. Lauriat and V.H. Vo	O	11:05	[156] M.K. Moharana and S. Khandekar	O
	Improved Reproducibility of Droplet Pinning Measurements on Microscopically Heterogeneous Surfaces			Temperature, surface roughness and anisotropy effects on the Tangential Momentum Accommodation Coefficient between Pt(100) and Ar			Effect of Channel Shape on Axial Back Conduction in the Solid Substrate of Microchannels	
11:25	[147] E. Locatelli, D. Ferraro, M. Pierno, G. Mistura, F. Baldovin and E. Orlandini	O	11:25	[100] D. Gentili, G. Bolognesi, M. Chinappi, A. Giacomello and C.M. Casciola	O	11:25	[87] F. Brighenti, N. Kamaruzaman and J. Brandner	O
	Diffusion of colloidal particles confined in microfluidic devices			Molecular Dynamics of TIP4P water over OTS-SAM patterned surfaces: influence of meniscus curvature on slippage			Optimization of micro surface cooler with short microchannels. Part 2 - Experimental and Numerical analysis.	
11:45	[59] R. Gupta, S. Leung, R. Manica, D. Fletcher and B. Haynes	O	11:45	[54] M. Sega, G. Amati, M. Sbragaglia and L. Biferale	O	11:45	[57] Y. Yang, I. Gerken, J. Brandner and G.L. Morini	O
	Three Dimensional Effects in Taylor Flow in Circular Microchannels			Fluid Flows in Nanochannels from the Atomistic Perspective			Design and Experimental Investigation of A Gas-to-Gas Counter Flow Micro Heat Exchanger	
12:05	[19] M. Mirmanto, J. Lewis and T. Karayiannis	P	12:05	[230] V. Raspal, K. Awitor, C. Massard and R. Bokalawela	O	12:05	[24] A. Aparajita and A.K. Satapathy	O
	Flow Patterns and Heat Transfer Measurements for Flow Boiling of Water in a Rectangular Microchannel			Study of hydrophobic adhesive nanostructured surfaces			Numerical analysis of heat transfer characteristics of combined electroosmotic and pressure-driven fully developed flow of power-law nanofluids in microchannels	
12:10	[34] A. Marin, M. Rossi and C. Kaehler	P	12:25	[113] E. Hildebrandt, M. Vrânceanu, H. Nirschl and G. Leneweit	P	12:25	[16] A. Sudarev and B. Sudarev	P
	Hydrodynamic inter-particle interactions in confined sheared particle microflows			Phospholipids as Emulsifiers for Micro/Nano Droplets Suitable for Biotechnological Systems Integration			Microminiaturization of Heat Exchangers for Independent Electrical Micro Sources (IPMs)	
12:15	[47] O. Carrier, E. Dervin, D. Funfschilling and H.-Z. Li	P	12:30	[152] V. Rudyak, A. Belkin and E. Tomilina	P	12:30	[227] S. Sánchez, O. Bautista, F. Méndez, E. Bautista and J. Arcos	P
	Formation of Satellite Droplets in Flow-Focusing Junctions: Volume and Neck Rupture			Molecular Dynamics Simulation of the Thermal Conductivity of Nanofluids			Lubrication Theory for Electroosmotic Flow in a Slit Microchannel with the Carreau Model	
12:20	[79] Y. Kuzma-Kichta, S. Scholl, A. Lavrikov, M. Shustov and P. Chursin	P	12:35	[190] C. Bakli and S. Chakraborty	P	12:35	[179] A. Lobasov, A. Minakov and V. Rudyak	P
	Heat transfer investigation in the microchannel with nano-relief			Combined Poiseuille and Couette Flow in Nanochannels Studied Using Molecular Dynamics Simulations			Experimental and numerical study of free and forced convection of nanofluids based on the of aluminum oxide	

13:00	**Lunch**							
	Session 6A			**Session 6B**			**Session 6C**	
	Session Chair: Holger Löwe			**Session Chair: Panagiota Angeli**			**Session Chair: Zhanhua Silber-Li**	
14:00	[63] M. Maeki, M. Miyazaki and K. Ohto Effective solvent extraction of metal ions with calixarene derivatives by using multiphase parallel flow	O	14:00	[235] D. Emerson and R. Barber A design approach for non-Newtonian power-law flow in rectangular micro-channels based on Murray's Law	O	14:00	[158] Z.-H. Silber-Li, X. Zheng, G.-P. Kong and T.-H. Moulden Enhancement of Vortices in Hybrid Micro/nano-channel Flows	O
14:20	[84] S. Kuhn, A. Woitalka and K. Jensen Mass Transfer in Gas-Liquid and Liquid-Liquid Multiphase Flows	O	14:20	[49] K. Aïzel, Y. Fouillet, C. Pudda, C. Chabrol and I. Texier -Nogues Investigation of the Concentration Polarization effect on nanoparticles using an original micro-nanofluidic device	O	14:20	[220] C.-O. Ng and Q. Zhou Electro-osmotic Flow Through a Thin Channel with Gradually Varying Wall Potential and Hydrodynamic Slippage	O
14:40	[145] Y.Y. Liao, V. Genot, J.-F. Audibert and R. Pansu In situ kinetics study of the formation of the BODIPY nanoparticles by Fluorescence Lifetime Imaging Microscopy (FLIM) along a microfluidic device	P	14:40	[83] C. Kemp, J. Wojciechowska, M. Esfahani, G. Benazzi, K. Shaw, S. Haswell and N. Pamme On-chip processing and DNA extraction from large volume urine samples for the detection of Herpes simplex virus 2	P	14:40	[231] H. Yoshida, T. Kinjo and H. Washizu Coupled lattice Boltzmann method for simulating electrokinetic flows in microchannels	P
14:45	[20] S. Shimada, M. Sakurai and H. Kameyama Fundamental study of microreactor with structured catalyst	P	14:45	[131] M.-H. Nguyen, M. Brandl, W. Hilber and B. Jakoby A microfluidic device for rare cells trapping by adaptable ferromagnetic structures	P	14:45	[239] G. Yossifon Nanocolloid-Nanochannel Electrokinetic Interaction	P
14:50	[86] J. Bucko and J. Brandner Experimental Setup for Polymerisations with Microstructure Fluidic Reactors	P	14:50	[128] N. Vourdas, D. Moschou, G. Kokkoris, G. Papadakis, S. Chatzandroulis and A. Tserepi Development of a continuous-flow µPCR device with microheating elements integrated with biosensors towards a lab-on-a-chip system for disease diagnosis	P	14:50		
	Plenary 4							
	Session Chair: Jürgen Brandner							
15:00	[257] H. Löwe, R. D. Axinte, D. Breuch, N. Ehm Unusual Heat Management for Imidazole-based Synthesis of Ionic Liquids Using Micro-flow Conditions							
15:40	**Coffee Break**							

	Session 7A			Session 7B			Session 7C	
	Session Chair: Stephan Scholl			**Session Chair: Marco Marengo**			**Session Chair: Christine Barrot-Lattes**	
16:00	[81] A. Belkadi, D. Tarlet, A. Montillet, J. Bellettre and P. Massoli	P	16:00	[30] V. Picot, M. Rossi, B. Alies, X. Dollat, C. Hureau, P. Faller and P. Joseph	P	16:00	[28] P. Vocale and M. Spiga	P
	High-Speed W/O Emulsification Within Impinging and Cross-Flowing Mini-Channels			Microfluidics for Alzheimer's Disease: on-chip study of amyloid-β aggregation			Slip Flow In The Hydrodynamic Entrance Region Of Microchannels	
16:05	[82] C. Rops, G. Oosterbaan and C. V/d Geld	P	16:05	[228] A. Vittoriosi, J. Brandner, P. Ruther, O. Paul and R. Dittmeyer	P	16:05	[151] E. Sokolov	P
	Pressure drop reduction in micro once-through evaporators			Design and characterization of integrated microsensors for heat transfer studies in microchannels			On certain approach to increasing of micronozzle performance	
16:10	[107] M. Nagel and F. Gallaire	P	16:10	[237] N. Morhell and H. Pastoriza	P	16:10	[175] Y. Li, S. Joseph, D. Newport and J. Brandner	P
	Depth-averaged droplet simulation in microfluidic channels.			A discussion of channels designs in microfluidic chips for viscosity sensors.			Local Friction Factor Measurement for Gas Flows in Rectangular Microchannels	
16:15	[109] W. Wibel, S. Maikowske and J. Brandner	P	16:15	[184] J. Cao, R. Schultheiß, S. Schneider, A. Schober, M. Köhler and G.A. Groß	P	16:15	[182] J. Kim, A. Frijns, S. Nedea and A. Van Steenhoven	P
	Novel Microstructured Evaporation Device			'Drop-By-Drop' - Tools for Droplet-Based Micro-Fluidic Processing			Compressibility and Geometric Effects for Gas Flows in Nanochannels: a 3D Molecular Dynamics Simulation	
16:20	[119] S. Maikowske and J. Brandner	P	16:20	[136] M. Kielpinski, A. März, D. Malsch, G. Mayer, J. Popp and T. Henkel	P	16:20	[133] K. Ellinas, K. Tsougeni, P.S. Petrou, D.P. Papageorgiou, S.E. Kakabakos, A. Tserepi and E. Gogolides	P
	Boiling of Water in Microfluidic Devices for a Controlled Generation of Homogeneous Steam			Alternating droplet generation for ultrasensitive flow-through spectroscopy			Control of flow and protein adsorption on plasma nanotextured microfluidics	
16:25	[139] S. Beinert, T. Gothsch and A. Kwade	P	16:25	[65] M. Maeki, Y. Teshima, S. Yosizuka, H. Yamaguchi, K. Yamashita and M. Miyazaki	P	16:25	[153] T.F. Kong and N.-T. Nguyen	P
	Numerical evaluation of stresses acting on particles or droplets in high-pressure micro-systems using a Reynolds stress model			A method for controlling nucleation profile using droplet based microfluidics that focus on the internal diffusion within droplets			Liquid metal microcoils for sensing and actuation in lab-on-a-chip applications	

16:30	[157] K.K. Singh, K.T. Shenoy, H. Rao and S.K. Ghosh	P	16:30	[245] I. Ziemecka, V. Van Steijn, J. Van Der Meer, D. Li, G. Koper, J. Van Esch and M. Kreutzer	P	16:30	[108] M. Dietzel and S. Hardt	P
	Numerical Simulation of Liquid-liquid Two-phase Flow at Microfluidic Junctions			All-aqueous compartmentalized micro droplets produced in a microfluidic device			Streaming Potential of an Electrolyte in a Microchannel with a Lateral Temperature Gradient	
16:35	[166] S. Mosler, M. Hoffmann, M. Schlueter, N. Rajabi and J. Müller	P	16:35	[167] N. Rajabi, J. Bahnemann, J. Wahrheit, E. Heinzle, A.-P. Zeng and J. Müller	P	16:35	[120] P. Vocale, M. Geri, G.L. Morini, M. Spiga and L. Cattani	P
	Numerical simulations and experimental investigations of two-phase flows in a Y-Y-shaped microreactor			Inertial-Based Media Exchange and Quenching for Continuous Cell Preparation in a Lab-on-a-Chip			Numerical Analysis Of Electro-Osmotic Flows Through Elliptic Microchannels	
16:40	[78] D. Tsaoulidis, V. Dore and P. Angeli	P	16:40	[200] J. Sherwood, E. Kaliviotis, J. Dusting and S. Balabani	P	16:40	[26] H. Ammar, B. Garnier, A. Ould El Moctar and H. Peerhossaini	P
	Extraction of Uranium in Microfluidic Channels using Ionic Liquids			Understanding the behaviour of blood flow at the microscale in the presence of aggregation			Heat Transfer Analysis and Improved Mixing of Reactants in Microreactor	
16:45	[17] Z. Chang, C. Serra, M. Bouquey, I. Kraus, I. Khan, T. Vandamme, N. Anton, C. Ohm, R. Zentel, A. Knauer and M. Köhler	P	16:45	[118] C. Fede, I. Fortunati, V. Weber, N. Rossetto, L. Petrelli, R. Signorini, G. Albertin and C. Ferrante	P	16:45	[92] Y. Gao, A. Reenen, M. Hulsen, A. De Jong, M. Prins and J. Den Toonder	P
	Engineering Polymer Microparticles by Droplet Microfluidics			Tracking Uptake and Toxicity of Nanoparticles in Human Endothelial Cells in Stationary and Flow Conditions			Chaotic Fluid Mixing by Alternating Micro-Particle Topologies to Enhance Biochemical Reactions	
16:50			16:50	[212] T. Kong and H.C. Shum	P	16:50	[252] C.-A. Kieffer, S. Ritty, T. Boudot, N. Petit, J. Weber and A. Le Nel	P
				Microfluidic Fabrication of Polymeric Core-shell Microspheres for Controlled Release Applications			A High Precision Fluid Handling System Based On Pressure Regulation: Multi-Channels Flow-Rate Control	
16:55			16:55			16:55		
20:00 - 24:00 Conference Gala-Dinner @ Halle 02, Heidelberg. Appropriate dress expected!								

Wednesday, 5 December 2012

08:00 Registration

	Auditorium			Operon			Flex Lab A	
	Session 8A			**Session 8B**			**Session 8C**	
	Session Chair: Marco Lorenzini			**Session Chair: Paul Watts**			**Session Chair: Michael Schlüter**	
09:00	[53] A. Fani, S. Camarri, C. Galletti, E. Brunazzi, M.V. Salvetti and R. Mauri	O	09:00	[202] P. Fürjes, E. Holczer, Z. Fekete, E. Tóth, F. Dortu and D. Giannone	O	09:00	[6] M. Mahmoud and T. Karayiannis	O
	Sensitivity of the engulfment to inlet flow conditions in a T-shaped micro-mixer: CFD and perturbation analysis			Development of a polimer based microfluidics for polimer based photonic biosensors			A correlation for Flow Boiling Heat Transfer in Micro Tubes	
09:20	[112] M. Rossi, R. Barnkob, P. Augustsson, Á. Marín, P. Muller, H. Bruus, T. Laurell and C. Kähler	O	09:20	[219] S. Hemmilä, A. Gao, T. Li, Y. Wang and P. Kallio	O	09:20	[61] G. Gürsel, A. Frijns, F. Homburg and A. Van Steenhoven	O
	Experimental and numerical characterization of the 3D motion of particles in acoustofluidic devices			Integration of Microfluidic Sample Delivery System on Silicon Nanowire-Based Biosensor			Analysis of the onset of the oscillation motion in a pulsating heat pipe	
09:40	[154] L. Benazzouk, E. Arquis, N. Bertrand, C. Descamps and M. Valat	O	09:40	[176] M. Calaon, H. Hansen, G. Tosello, J. Garnaes, J. Nørregaard and M. Guttmann	O	09:40	[67] C. Baldassari, M. Mameli and M. Marengo	O
	Motion of a Liquid Bridge in a Capillary Slot: A Numerical Investigation of Wetability and Geometrical Effects			Production quality control of microfluidic chip designs			Heterogeneous and Non Uniform Onset of Nucleate Flow Boiling of R-134a Inside a Glass Minichannel	
10:00	**Coffee Break**							
	Plenary 5							
	Session Chair: Stéphane Colin							
10:20	[215] K. Aoki							
	Kinetic theory approach to microscale gas flows							

	Session 9A			Session 9B			Session 9C	
	Session Chair: Yves Fouillet			**Session Chair: Weiling Luan**			**Session Chair: Gian Luca Morini**	
11:10	[31] C. Nwankire, E. Vereshchagina, J. Gaughran, M. O'Sullivan, N. Dimov, C.K. Dixit, M. Kitsara, L. Kent, G. Aguirre, M. Glynn, D. Kinahan, R. Burger, D. Kirby and J. Ducrée	O	11:10	[110] D. Sugiyama, Y. Teshima, Y. Asanomi, M.P. Nagata, K. Yamashita, K. Yamanaka, M. Takahashi and M. Miyazaki	O	11:10	[99] D. Funfschilling, O. Carrier and H.-Z. Li	O
	Multi-force, multi-phase, multi-material, multi-component, multi-dimensional, multi-scale, multi-functional, multi-purpose microfluidic lab-on-a-disc platforms			Density-based particle separation using a microfluidic device			Flow field measurements during the formation of droplets in flow-focusing junctions	
11:30	[72] A. Dawson	O	11:30	[130] P. Watts	O	11:30	[111] S. Leung, D. Fletcher and B. Haynes	O
	Paper Microfluidics in Point of Care Diagnostics			Micro reactors as a tool in synthetic organic chemistry			Experimental Investigation of Taylor and Intermittent Slug- annular/Annular Flow in Microchannels	
11:50	[90] W.H. Koh, K.S. Loke and N.-T. Nguyen	O	11:50	[143] M. Schoenitz, N. Warmeling, W. Augustin and S. Scholl	O	11:50	[140] T. Gothsch, S. Beinert, C. Richter, S. Büttgenbach and A. Kwade	O
	A digital micro magnetofluidic platform for lab-on-a-chip applications			Continuous Crystallization of Lipid Nanoparticles in a Micro Heat Exchanger: Process Performance and Fouling Visualization			Investigation in high pressure micro-channel concerning flow and dispersion behaviour	
12:10	[116] K. Shaw, R. Vasiliadou, J. Parton and S. Haswell	O	12:10	[234] C. Blesinger, S. Yalcin, C. Pauls and A. Bardow	O	12:10		
	Integrated DNA Purification and Amplification using FTA® Paper and PCR Reagent Encapsulation			Rapid Multicomponent Diffusion Measurements using Microfluidics				
12:30	**Lunch**							
	Plenary 6							
	Session Chair: Tassos Karayiannis							
13:50	[241] N.-T. Nguyen							
	Active Manupulation Schemes for Microdroplets							

	Session 10A			Session 10B			Session 10C	
	Session Chair: Kazuo Aoki			**Session Chair: Christophe Serra**			**Session Chair: Lucien Baldas**	
	[43] V. Aniskin, S. Mironov and A. Maslov	O		[60] R. Dey, J. Chakraborty and S. Chakraborty	O		[208] M. Cartas-Ayala, L. Gilson, C. Shen and R. Karnik	O
14:40	The Experimental Investigation of Supersonic Core Length of Microjets		14:40	Combined Interplay of Steric Effects and Asymmetric Zeta Potential on Electrokinetic Transport of Non-Newtonian Fluids through Narrow Confinements: Studies on Streaming Potential		14:40	Light-triggered logic microfluidic circuits	
	[7] T. Tsuji and K. Aoki	O		[80] Z. Liu, M. Speetjens, A. Frijns and A. Van Steenhoven	O		[232] V. Taly, D. Pekin, B. Hutchison, D. Link, H. Blons and P. Laurent-Puig	O
15:00	Gas motion in a micro gap between longitudinally oscillating and stationary plates		15:00	Experimental and numerical observations on vortical structures in 3D AC electro-osmotic flows		15:00	Cancer screening in droplets	
				[91] M. Geri, M. Magnini, B. Pulvirenti and G.L. Morini	O		[247] J. Li, Y. Zhang and J. Reese	O
15:20			15:20	Influence of Variable Properties on Electro-osmotic Flows Through Rectangular Microchannels		15:20	Multiphase lattice Boltzmann simulations of droplets in microchannel networks	
				[122] M. Mayur, S. Amiroudine, D. Lasseux and S. Chakraborty	O			
15:40			15:40	Effect of Maxwell stress on electro-osmotic flow of two immiscible fluids in a rectangular microchannel		15:40		

16:00 Closing Remarks
End of Conference