

## Laurell – Publications in peer reviewed international scientific journals 1992-2021

URL to Laurell ISI (Web of Knowledge) Researcher ID: <http://www.researcherid.com/rid/B-5524-2013>.

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ISI citation data as of July 2021 (ex. conference proceedings):

>236 ISI registered journal papers (article, review & editorial);

>11000 citations; average citation/paper: 46; h-index: 56; 33 patent filings

30 papers cited  $\geq$  100 times

Google Scholar; >17900 citations; h-index: 68;

### 2021

1. Masashi Ugawa, Hoyeon Lee, Thierry Baasch, Minh Lee, Soyun Kim, Ok Chan Jeong, Yong-Hoon Choi, Daewon Sohn, Thomas **Laurell**, Sadao Ota, SangWook Lee, Reduced acoustic resonator dimensions improve focusing efficiency of bacteria and submicron particles, **Analytst**, Accepted Nov. 2021
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3. Eva Undvall Anand, Cecilia Magnusson, Andreas Lenshof, Yvonne Ceder, Hans Lilja, Thomas **Laurell**, Two-step acoustophoresis separation of live tumor cells from whole blood, **Analytical Chemistry**, Accepted Nov 2021
4. Olm F, Panse L, Dykes J, Bexell D, **Laurell T**, Scheduling S., Label-free separation of neuroblastoma patient-derived xenograft (PDX) cells from hematopoietic progenitor cell products by acoustophoresis, **Stem Cell Research & Therapy**, 2021 12:542, DOI:10.1186/s13287-021-02612-2
5. Hemachandran E, **Laurell T.**, Sen A. K., Reversible stream drop transition in a microfluidic coflow system via on demand exposure to acoustic standing waves, **Physical Review Letters**, 2021, 127, 134501, DOI: 10.1103/PhysRevLett.127.134501
6. Paulina Bryl-Górecka, Kreema James, Kristina Torngren, Inger Haraldsson, Li-Ming Gan, Sara Svedlund, Björn Olde, Thomas **Laurell**, Elmir Omerovic, David Erlinge, Microvesicles in plasma reflect coronary flow reserve in patients with cardiovascular disease, **AJP-Heart and Circulatory Physiology**, 2021, 320, 5, H2147-H2160, DOI: 10.1152/ajpheart.00869.2020
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9. Kyo-in Koo, Andreas Lenshof, Le Thi Huong, Thomas **Laurell**, Acoustic cell patterning in hydrogel for three-dimensional cell network formation, **Micromachines**, 2021, 12 (1), 3, <https://doi.org/10.3390/mi12010003>
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#### **Conference papers.**

The applicant has produced over 200 conference papers in the time period of 1997-2013. >90 % of these are peer reviewed contributions.

#### **Patent filings**

- 1) **Devices and methods for acoustofluidic operations using thin film ultrasound transducers**  
**Inventors: Henrik Bruus, Andre Gugele Steckel, Thomas Laurell**  
**Application number: EP21154133.9**
- 2) **Methods and apparatuses for predicting and using one or more resonance frequencies for efficient operation of an acoustofluidic cavity**  
**Inventors: Giulia Core, Valentina Vitali, Andreas Lenshof, Thomas Laurell, Fabio Garofalo**  
**Application number: 18190863.3-1020**
- 3) **In vitro model and device**  
**Inventor: Agnete Kirkeby, Malin Parmar, Axel Tojo, Thomas Laurell**  
**Application number: P10646SE00, April 2014**
- 4) **System and method for small cells and particles**  
**Inventor: Maria Nordin, Per Augustsson, Thomas Laurell**  
**Application number: P10367SE00, October 2013**
- 5) **System and method to analyse non-spherical cells**  
**Inventor: Ola Jakobsson, Carl Grenvall, Thomas Laurell**  
**Application number: P10313SE00, September 2013**
- 6) **Separate cells**  
**Inventor: Andreas Lenshof, Stefan Scheduling, Per Augustsson, Thomas Laurell**  
**Application number: SE- 1251064-0, August 2012**



- 7) Microfluidic Impedance Flow Cytometer**  
**Inventor:** Christer Bisgaard, Carl Grenvall, Thomas Laurell, Christian Antfolk  
**Application number:** PCT/EP2012/057290, June 2012
- 8) System and method to separate cells and/or particles**  
**Inventor:** Per Augustsson, Cecilia Magnusson, Carl Grenvall and Thomas Laurell  
**Publication info:** P9716SE00, Sept. 2011
- 9) Separation of particles in liquids by use of a standing ultrasonic wave**  
**Inventor:** Claus Holm, Jacob-Riis Folkenberg, Carl Grenvall, Per Augustsson, Thomas Laurell  
**Publication info:** PCT/EP2008/063434 2008-10-08
- 10) Slicing device**  
**Inventor:** Erik Sundström, Elisabeth Åkesson, Lars Wallman, Thomas Laurell  
**Publication info:** WO2008136729 (A1) — 2008-11-13
- 11) Microchip-based acoustic trapping or capture of cells for forensic analysis and related method**  
**Inventor:** Katie Horsman, James Landers, Thomas Laurell, Mikael Nilsson, Johan Nilsson  
**Publication info:** CA20062624914 2006-10-04
- 12) Method for separation**  
**Inventor:** Laurell Thomas, Petersson Filip  
**Publication info:** WO2007EP54372 2007-05-04
- 13) Device and method for separation**  
**Inventor:** LAURELL THOMAS (SE); ALLERS MATS (SE); (+4) **Applicant:** ERYSAVE AB IDEON  
**EC:** A61M1/34F; A61M1/34P **IPC:** B01D43/00; B01J8/16  
**Publication info:** ES2235007T - 2005-07-01
- 14) Microfluidic cell and method for sample handling**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+3) **Applicant:**  
**EC:** B01J19/00R; B01L3/00C6M; (+2) **IPC:** G01N21/00; G01N31/22  
**Publication info:** US2005106064 - 2005-05-19
- 15) Dockable processing module**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+3) **Applicant:**  
**EC:** B01L3/00C2D; B01L3/02D; (+3) **IPC:** C12M1/34  
**Publication info:** US2005070010 - 2005-03-31
- 16) FFE array dispenser**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+1) **Applicant:** ASTRAZENECA AB (SE)  
**EC:** B01L3/00C2D; B01L3/02D; (+3) **IPC:** H02N2/00; H01L41/04; (+1)  
**Publication info:** US2005047962 - 2005-03-03
- 17) High sensitivity protein workstation and techniques**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+1) **Applicant:**  
**EC:** B01L3/00C2D; B01L3/02D; (+2) **IPC:** G01N33/53; C12M1/34  
**Publication info:** US2005048568 - 2005-03-03
- 18) Biomolecule handling method and machine using an array dispenser**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+1) **Applicant:** ASTRAZENECA AB (SE)  
**EC:** B01L3/00C2D; B01L3/02D; (+3) **IPC:** G01N1/10  
**Publication info:** US2005042769 - 2005-02-24

- 19) **Machine and method for processing biomolecules**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+1) **Applicant:**  
EC: B01L3/00C2D; B01L3/02D; (+2) **IPC:** H01J49/00; B01D59/44  
**Publication info:** US2005029440 - 2005-02-10
- 20) **Device and method useable for integrated sequential separation and enrichment of proteins**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+1) **Applicant:**  
EC: B01L3/00C2D; B01L3/02D; (+3) **IPC:** C12M1/34  
**Publication info:** US2005032202 - 2005-02-10
- 21) **Target plate for mass spectrometers and use thereof**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+1) **Applicant:**  
EC: B01L3/00C2D; B01L3/02D; (+3) **IPC:** G01N24/00  
**Publication info:** US2005031496 - 2005-02-10
- 22) **DEVICE AND METHOD FOR ANALYSIS OF SAMPLES USING A COMBINED SAMPLE TREATMENT AND SAMPLE CARRIER DEVICE**  
**Inventor:** EKSTROEM SIMON (SE); LAURELL THOMAS (SE); (+3) **Applicant:** EKSTROEM SIMON (SE); LAURELL THOMAS (SE); (+3)  
EC: B01L3/00C6D2; G01N33/543K **IPC:** G01N33/543; B01L3/00  
**Publication info:** WO2005008244 - 2005-01-27
- 23) **GENERIC ARRAY DISPENSER WITH LAMINAR VIRTUAL FLOW CHANNELS**  
**Inventor:** LAURELL THOMAS; NILSSON JOHAN **Applicant:** LAURELL THOMAS; NILSSON JOHAN  
EC: **IPC:** G01N35/10; G01N1/28; (+1)  
**Publication info:** AU2002359112 - 2003-07-09
- 24) **System and method for treating whole blood**  
**Inventor:** LAURELL THOMAS (SE); JOENSSON HENRIK (SE); (+2) **Applicant:**  
EC: A61M1/34F; A61M1/34P **IPC:** C02F1/44  
**Publication info:** US2004069708 - 2004-04-15
- 25) **DEVICE FOR COMPOUND DISPENSING**  
**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE) **Applicant:** LAURELL THOMAS (SE); NILSSON JOHAN (SE)  
EC: B05B7/04A; B05B17/06B; (+1) **IPC:** B05D1/34; G01D15/18  
**Publication info:** WO02100558 - 2002-12-19
- 26) **PARTICLE SEPARATION**  
**Inventor:** JOENSSON HENRIK (SE); LAURELL THOMAS (SE); (+2) **Applicant:** ERYSAVE AB (SE); JOENSSON HENRIK (SE); (+3)  
EC: A61M1/34F; A61M1/34P **IPC:** B01D43/00; B01J8/16  
**Publication info:** WO02072236 - 2002-09-19
- 27) **Method of etching an opening**  
**Inventor:** LAURELL THOMAS (SE); DROTT JOHAN (SE); (+2) **Applicant:**  
EC: B41J2/16G **IPC:** C23F1/02; B41J2/16; (+1)  
**Publication info:** US6620331 - 2003-09-16
- 28) **MICROPUMP**  
**Inventor:** LAURELL THOMAS (SE); WALLIN ANDREAS (SE) **Applicant:** LAURELL THOMAS (SE); WALLIN ANDREAS (SE)  
EC: F04B43/04M2 **IPC:** F04B43/04; F04B43/14  
**Publication info:** WO0028213 - 2000-05-18

**29) FLOWMETER**

**Inventor:** CEWERS GOERAN; LAURELL THOMAS; (+1) **Applicant:** SIEMENS ELEMA AB  
**EC:** G01F1/28; G01P5/04 **IPC:** G01P5/08  
**Publication info:** JP2000028628 - 2000-01-28

**30) SYSTEM FOR PERFORMING ASSAYS ON A LEVITATED DROPLET**

**Inventor:** LAURELL THOMAS (SE); NILSSON JOHAN (SE); (+5) **Applicant:** ORTHO MCNEIL  
PHARM INC (US); LAURELL THOMAS (SE); (+6)  
**EC:** B01L3/02D; B01L11/00 **IPC:** B01L11/00; B01L3/02  
**Publication info:** WO9944746 - 1999-09-10

**31) Flow-through sampling cell and use thereof**

**Inventor:** WALLMAN LARS (SE); DROTT JOHAN (SE); (+3) **Applicant:** PHARMACIA BIOTECH AB  
(US)  
**EC:** B01L3/00C6M; B01L3/02D; (+1) **IPC:** G01N1/20  
**Publication info:** US6192768 - 2001-02-27

**32) Carrier matrix for integrated microanalysis systems, method for the production thereof and use of the same**

**Inventor:** LAURELL THOMAS (SE); DROTT JOHAN (SE); (+2) **Applicant:** PHARMACIA BIOTECH  
AB (US)  
**EC:** B01J19/00R; C25F3/12; (+1) **IPC:** B32B13/04; B31D3/00; (+1)  
**Publication info:** US6187446 - 2001-02-13

**33) Mikrodialysson**

**Inventor:** Thomas Laurell, Kjell Lindström, Lennart Nilsson  
**Publication info:** SE9500977 1996-05-13