

## CURRICULUM VITAE

Dr. Chem. Silvija ABELE, MRSC

### EDUCATION

<b><u>1994 - 1998</u></b>	<b><u>PhD Thesis in co-tutelle</u></b> between the University of Latvia (Riga) and the University of Claude Bernard Lyon I (France) Thesis title: «Preparation and Characterisation of Reactive Surfactants Derivatives of Maleic Anhydride. Utilisation in Emulsion Polymerisation» ⇒ Ph.D. in Chemistry of Materials awarded 22.06.1998 by the University of Claude Bernard Lyon I (honours degree) ⇒ PhD in Chemistry awarded 15.09.1998 by the University of Latvia
1994-1995 Latvia	• Ph.D. studies in the Laboratory of Organic Chemistry, Faculty of Chemistry, the University of Latvia (Riga) : Organic synthesis of reactive surfactants, supervisor Prof. A. Zicmanis
1995 Sweden	• Internship (2 months) at the Institute of Surface Chemistry (YKI, Stockholm, Sweden): Characterisation of surface tension of reactive surfactants maleic derivatives, supervisor Dr. Chem. M. Sjöberg
1996-1998 France	• Ph.D. studies in the Laboratory of Chemistry and Polymerisation Processes the University of Claude Bernard Lyon I (LCPP-CNRS/CPE Lyon, France): emulsion polymerisation of styrene/butyl acrylate using reactive surfactants maleic derivatives, characterisation of latexes, thin film formation from the obtained latexes, mechanical testing of these polymer films, supervisor Prof. A. Guyot.
<b><u>1988 - 1994</u></b>	University of Latvia, Faculty of Chemistry Undergraduate thesis title: « Synthesis and Characterisation of Reactive Surfactants » (supervised by Prof. A. Zicmanis) ⇒ University diploma awarded 13.06.1994

### PROFESSIONAL and RESEARCH EXPERIENCE

In addition to full time teaching position at the University of Latvia Dr Abele had several extensive research experiences (as postdoctoral research fellow) abroad which confirms excellent mobility track of Dr Abele. Below the professional experience is listed in the chronological order starting from the most recent position.

2013 (February – June) Norway

**University of Oslo, Faculty of Mathematics and Natural Sciences, Department of Chemistry, Researcher**

- 5 months experience in the project funded by Norwegian Research Council (project number 197431) “Innovative technology development for tumour stem cell marker identification” under supervision of prof. E. Lundanes
- Laboratory/research skills include: preparation of polymer layer open tubular (PLOT) capillary columns having zwitterionic (ZIC) functionalities. In this project such columns are used in hydrophilic interaction chromatography (HILIC) for tumour stem cell marker identification. Scanning electron microscopy (SEM) is used for imaging and quality control of obtained monolithic columns. Hands-on learning of liquid chromatography (LC) and liquid chromatography-mass spectrometry (LC-MS) techniques applying the ZIC-HILIC- PLOT columns obtained.

- **FP7-PEOPLE-2013-IEF** project (Development of HILIC-PLOT columns for LC-MS analysis of metabolites of cancer stem cells) has been submitted by Dr Abele in 13.08.2013 and project currently is in the evaluation stage

2009 – 2012 Latvia

**University of Latvia, Faculty of Chemistry, Department of Analytical Chemistry**

**Docent and Associated professor**

During this period Dr Abele was full time lecturer and therefore was mainly focusing on the teaching of analytical and general chemistry (including English speaking medicine students). Although the teaching load was taking most of the time, in parallel the research activities were carried out and several research grant applications were prepared and submitted at the European and National level:

- In 2009 **FP7-PEOPLE-2009-IEF** project "Monolithic materials for separation science" (253387) was submitted in the frame of Marie Curie Mobility Actions. This project scored 74,5 points but was not supported for funding mainly due to unsatisfactory infrastructure not being able to support the research suggested. The applicant herself was highly marked as a researcher (4.5 points out of 5).
- National project proposal "Monolithic materials for chromatography" was submitted to Latvian Research Council in the frame of Fundamental and Applied Research projects (Ref FLPP, 2010) for the funding of 135 000 LVL (€ 193 000). Project was supported but not financed due to the difficult economic situation in the country and lack of resources for funding science.

Despite the lack of financial resources a small research group was established in 2009 and research activities in the field of monoliths were carried out focusing on column preparation and testing them in liquid chromatography (LC). A promising collaboration has started with Latvia's biggest pharmaceutical company Grindeks. 4 Bachelors projects based on research in organic monoliths were supervised by Dr Abele during this period in Latvia.

In January 2012 the author of this proposal became the Expert of the Research Council of Latvia in the field of Physical and Analytical Chemistry (Commission of Mathematics and Natural Sciences).

In May 24, 2012 Dr Abele was elected as Associated professor in the Department of Analytical Chemistry and this fact also confirms the outstanding research and teaching skills of Dr Abele.

2006 – 2009 Ireland

**Dublin City University, School of Chemical Sciences, Microfluidic separations group, Irish Separation Science Cluster**

**Postdoctoral research fellow** in Marie Curie Excellence Team (Dr Mirek Macka, Marie Curie Excellence Grant 2004, MEXT-CT-2004-014361)

- Laboratory/research skills include: photopolymerisation of monolithic stationary phases in fused silica capillaries and in the channels of microfluidic chips, thermal polymerisation, evanescent wave initiated photopolymerisation, scanning electron microscopy (SEM), flow injection analysis, electrophoresis.
- Management skills include: supervision of students projects, grant writing (4 successful grants, see Grants awarded below), management of several budgets of research projects, etc.

Dr Abele was a leading member of M. Macka's research group in DCU contributing immensely both to the research and to the smooth running of the group. Management of several research projects both practically and financially was one of author's main responsibilities. Apart from management and supervision of student's projects in DCU several Research projects were carried out by S. Abele herself:

- Monolithic materials as stationary phases for separation science (open tubular monolithic columns and exotic monoliths)
- Flow injection analysis on microfluidic chip using light emitting diode as light source
- Electrophoresis of biological samples

These projects resulted in several scientific papers and dozens of scientific conference presentations.

2001 – 2005 Latvia

University of Latvia, Faculty of Chemistry, Department of Analytical Chemistry

Lecturer and Docent

- Specialisation: Analytical Chemistry
- Other courses: Methods of analytical investigation, General chemistry, Analysis of organic compounds
- Member of the Senate of the University of Latvia, 2004-2005, Academic commission
- 2 grant proposals were successful during this period:
  - Project funded by the Academy of Sciences of Latvia and the Ministry of Education was focusing on the improvement of properties of polymerconcrete by incorporating reactive surfactants maleic acid derivatives.
  - A bilateral research project OSMOSE between Latvia and France. This project was about using maleic surfactants in emulsion polymerisation with an aim to improve the properties of obtained latexes. This funding gave opportunity for 2 Latvian students to visit ESPCI (*Ecole Supérieure de Physique et Chimie Industrielles*) in Paris and do the part of the project there.

The experience of Dr Abele obtained during the PhD and the first postdoctoral period in France (see below) provided S. Abele with extensive knowledge in polymer science which allowed supervising student's research during 2001-2005 what resulted in 18 course projects, 4 Bachelors projects and 2 Masters projects both in analytical and physical chemistry.

December 23, 2002, only one year after starting the academic career at the University of Latvia, Dr Abele was elected as Docent in the Department of Analytical chemistry of the University of Latvia

2000 – 2001 France

CNRS/ATOFINA research group (CAL, Levallois-Perret and ESPCI, Paris, France)

Postdoctoral research fellow in the group of Dr. Chem. L. Leibler

- Research project "Structuration of reaction medium by sequenced or grafted copolymers"
- Skills include: dispersion copolymerisation of styrene/butyl acrylate/methyl methacrylate in aqueous medium, polymer melt processing and mechanical testing, dynamic mechanical analysis.

**Brief abstract of the project.** Poly(styrene-co-methyl methacrylate) copolymer (SM) is quite brittle material, especially at low temperatures. The idea of project was the use of block copolymer poly(styrene-*block*-butadiene-*block*-methyl methacrylate (SBM) as an impact modifier in the matrix of SM copolymer in order to improve the mechanical properties of SM matrix at the same time keeping good optical properties (transparency). SBM was added *in situ* during the S/M dispersion copolymerisation. It was found that the optimum concentration of SBM is 25% in the SM matrix.

It was found that the presence of triblock copolymer SBM not only ameliorates the mechanical properties of SM copolymer matrix but also is resulting in structuration of final polymer in nanosized scale (<100 nm). By associating the triblock copolymer SBM as structuring agent and impact modifier with SM random copolymer (matrix) during the polymerisation, transparent and impact resistant materials were obtained due to the nano-scaled dispersion of triblock in the matrix.

The results of the project served as a basis for the international patent application (see Patent N3) and therefore they could not be published in scientific journals. Altogether patent was filed in Europe and 6 countries outside Europe (Canada, US, Australia, South Korea, Japan, China), which proves the value of results obtained during the project. Results were later presented at 38th Congress of the French Rheological Group (Brest, 15-17 October 2003, S. Abele, D. Bensarsa, L. Leibler and M. Hidalgo).

**PARTICIPATION in the NATIONAL and INTERNATIONAL RESEARCH PROJECTS**

Year	Project	Role of Dr Abele
2013	Project funded by <b>Norwegian</b> Research Council (197431) "Innovative technology development for tumour stem cell marker identification"	Experimental work Theoretical work
2011	ERAF project „Monolithic materials for separation science“, <b>Latvia</b> (Project supported the preparation of FP7-REGPOT-2012-2013-1 project proposal)	Writing of proposal
2009	Enterprise <b>Ireland</b> Proof of Concept project "Open tubular capillary columns obtained by evanescent wave photopolymerisation"	Writing of proposal Principal investigator Management of project
2008-2009	Enterprise <b>Ireland</b> Proof of Concept project "Gold Nano-layers on Monolithic Scaffolds"	Writing of proposal Management of project
2003-2004	Market oriented research project of the University of <b>Latvia</b> and the Institute of Polymer Mechanics funded by Academy of Sciences of Latvia "Use of reactive maleic surfactants to improve the properties of polymer concrete" (Prof. A. Zicmanis, Dr. L. Jirgenst)	Writing of proposal Principal investigator Management of project Supervision of students
2003	OSMOSE - bilateral research project between <b>Latvia and France</b> (Dr. I. Iliopoulos, ESPCI, Paris) "Synthesis of reactive surfactants and their use in new polymeric materials"	Writing of proposal Principal investigator Management of project
1997-2001	<b>International</b> research project BRITE EURAM (BRPR CT970525, 01.12.97 – 28.02.01). Report "Hemiesters and hemiamides of maleic acid. Synthesis and emulsion polymerisation" presented at the project meeting in Lyon ( <b>France</b> ) 15.12.97 by S. Abele	Experimental work Theoretical work Writing PhD thesis

**FUNDING (GRANTS AWARDED)**

*Project proposals written by Dr Abele*

TOTAL	All projects together	€ 200 000
2013	<b>FP7-PEOPLE-2013-IEF</b> project Development of HILIC-PLOT columns for LC-MS analysis of metabolites of cancer stem cells	Evaluation stage
2011	<b>ERAF project</b> 7.02.2011-31.12.2011 Monolithic materials for separation science (2010/0202/2DP/2.1.1.2.0/10/APIA/VIAA/013)	€10 400
2009	<b>Enterprise Ireland Proof of Concept project</b> Open tubular capillary columns obtained by evanescent wave photopolymerisation (PC/2008/339)	€ 69,184.95
2009	<b>Dublin City University School of Chemistry Placement Training fund</b> (P. Smejkal) Synthesis of open tubular monolithic columns and their use for enzyme grafting and protein digestion	€ 500
2008-2009	<b>Enterprise Ireland Proof of Concept project</b> Gold Nano-layers on Monolithic Scaffolds (PC/08/004)	€ 93,599
2008	<b>Dublin City University School of Chemistry Placement Training fund</b> (U. Daņilēvičs) Noble metal coated silica monoliths for separation science	€ 2,500
2003-2004	<b>Academy of Sciences of Latvia/Ministry of Education.</b> Use of reactive maleic surfactants to improve the properties of polymer concrete	€22 400
2003	<b>OSMOSE - bilateral research project (Latvia-France)</b> Synthesis of reactive surfactants and their use in new polymeric materials	travels funded by French part

## PATENTS

Dr Abele has intellectual and practical contribution to all 3 patents listed below. In the case of first two patents author also participated in writing of the patent application forms. Third patent was based on the experimental work and results of Dr Abele, this patent is filed in Europe and 6 countries outside Europe which confirms the practical value of this research done and patent obtained.

1. Macka M., Paull B., Grundmann M., Walsh Z., **Abele S.**, Method for Metal Coated Porous Scaffold Material, U.S. Provisional Patent Application number 60/943,896, filed 14 June, 2007, PCT WO 2008/151917 A1, published 18.12.2008.
2. Macka M., Foret F., **Abele S.**, Method for surface photopolymerisation using total reflection wave guiding and evanescent field, U.S. Provisional Patent Application 60/950,218, filed 17.07.2007.
3. M. Hidalgo, **S. Abele**, F. Court, L. Leibler, D. Bensarsa, Ductile and transparent thermoplastic compositions comprising an amorphous matrix and a block copolymer, PCT Patent Appl. WO 2004/037921 A1, Published May 06, 2004 and WO2004037921(A9), Published Jun 23, 2005. This patent has been filed with the following countries:
  - Canada - Patent CA2503222(A1), Published: May 06, 2004
  - Australia - Patent AU2003285399(A1), Published: May 13, 2004
  - South Korea - Patent KR20050057666(A), Published: Jun 16, 2005
  - Europe - European Patent Application EP1565528(A1), Published: Aug 24, 2005
  - China - Patent CN1729250(A), Published: Feb 01, 2006
  - Japan – Patent JP2006503950(T), Published: Feb 02, 2006
  - United States - Patent US2006128892(A1), Published: Jun 15, 2006. **3 Citations (22.02.2013)**

## PUBLICATIONS

Total: 14 papers

According to the Google Scholar as in 10 June 2013 Dr Abele has

- 222 citations
- **h-index is 9**
- i10-index is 9.

Below the paper list is given categorised according to the input of Dr Abele in each paper. For journals impact factors the corresponding websites of journals were used, but for author citations Google Scholar was used.

Papers written by and based on the experimental work of Dr Abele:

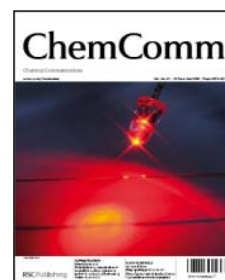
1. **Abele S.**, Nie F.-Q., Foret F., Paull B., Macka M., UV-LED photopolymerised monoliths, The Analyst, vol. 133, 7, 2008, 864-866.  
**Impact Factor = 3,913; Science Citation Index = 20 (2.05.2013)**
  - Article featured on the cover (photo by T. Piasecki)
  - Selected for inclusion in RSC's news supplement Chemical Technology
  - Hot Article - rated "significant" by the peer-reviewers
2. **Silvija Abele**, Petr Smejkal, Oksana Yavorska, Frantisek Foret and Mirek Macka, Evanescent wave-initiated photopolymerisation as a new way to create monolithic open-tubular capillary columns: use as enzymatic microreactor for on-line protein digestion, The Analyst, 2010, 135, 477-481, DOI: 10.1039/B920789A.  
**Impact Factor = 3,913; Science Citation Index = 10 (2.05.2013)**
3. **S. Abele**, C. Gauthier, C. Graillat, A. Guyot, Films from Styrene-Butyl Acrylate Lattices Using Maleic or Succinic Surfactants : Mechanical Properties, Water Rebound and Grafting of the Surfactants, Polymer 41 (2000), 1147-1155.  
**Impact Factor = 3,828; Science Citation Index = 32 (02.05.2013)**



4. **S. Abele**, C. Graillat, A. Zicmanis, A. Guyot, Hemiesters and Hemiamides of Maleic and Succinic Acid : Synthesis and Application of Surfactants in Emulsion Polymerization with Styrene and Butyl Acrylate, Polym. Adv. Technol. 10, 301-310 (1999).  
**Impact Factor = 1,776; Science Citation Index = 28 (02.05.2013)**
5. **S. Abele**, A. Zicmanis, C. Graillat, C. Monnet, A. Guyot, Cationic and Zwitterionic Polymerizable Surfactants - Quaternary Ammonium Dialkyl Maleates: I. Synthesis and Characterization, Langmuir 1999, 15, 1033-1044.  
**Impact Factor = 4,268; Science Citation Index = 27 (02.05.2013)**
6. **S. Abele**, A. Zicmanis, C. Graillat, A. Guyot, Cationic and Zwitterionic Polymerizable Surfactants - Quaternary Ammonium Dialkyl Maleates: II. Emulsion Polymerization of Styrene and Butyl Acrylate, Langmuir 1999, 15, 1045-1051.  
**Impact Factor = 4,268; Science Citation Index = 21 (02.05.2013)**
7. **Abele S.**, Sjöberg M., Hamaide T., Zicmanis A. and Guyot A. Reactive Surfactants in Emulsion Polymerization. X. Characterization of the Surface Activity of New Polymerizable Surfactants Derived from Maleic Anhydride, Langmuir 1997, 13, 176-181.  
**Impact Factor = 4,268; Science Citation Index = 24 (02.05.2013)**

Papers by PhD students co-supervised by Dr Abele:

8. Zarah Walsh, **Silvija Abele**, Brian Lawless, Dominik Heger, Petr Klán, Michael C. Breadmore, Brett Paull and Mirek Macka, Photoinitiated polymerisation of monolithic stationary phases in polyimide coated capillaries using visible region LEDs, Chem. Comm., (issue 48), 6504 – 6506, 2008, DOI: 10.1039/B816958F.  
**Impact Factor = 5,787; Science Citation Index = 12 (22.02.2013)**
  - Article featured on the cover (photo by **S. Abele**)
9. Zarah Walsh, Pavel A. Levkin, **Silvija Abele**, Silvia Scarmagnani, Dominik Heger, Petr Klán, Dermot Diamond, Brett Paull, Frantisek Svec, Mirek Macka, Polymerisation and Surface Modification of Methacrylate Monoliths in Polyimide Channels and Polyimide Coated Capillaries using 660 nm Light Emitting Diodes, J. Chromatogr. A, 1218 (2011) 2954-2962.  
**Impact Factor 4.194, Science Citation Index = 4 (02.05.2013)**
10. Lenka Krčmová, Anna Stjernlof, Sebastien Mehlen, Peter C. Hauser, **Silvija Abele**, Brett Paull and Mirek Macka, Deep-UV-LEDs in photometric detection: A 255 nm LED on-capillary detector in capillary electrophoresis, The Analyst, **2009**, vol.134, issue 12, 2394-2396, DOI:10.1039/B916081G.  
**Impact Factor = 3,913; Science Citation Index = 6 (02.05.2013)**
11. Zarah Walsh, Silvia Scarmagnani, Fernando Benito-Lopez, **Silvija Abele**, Fu-Qiang Nie, Conor Slater, Robert Byrne, Dermot Diamond, Brett Paull, Mirek Macka, Photochromic spiropyran monolithic polymers: Molecular photo-controllable electroosmotic pumps for micro-fluidic devices, Sensors and Actuators B: Chemical, Vol.148, issue 2, 15 July 2010, Pages 569-576.  
**Impact Factor 3,368; Science Citation Index = 2 (02.05.2013)**
12. Uzulina I., **Abele S.**, Zicmanis A., Guyot A., Methacrylic Maleic Bifunctional Stabilizer in Emulsion Polymerization, Macromolecular Chemistry and Physics, Macromol. Rapid Commun. 19, 397-402 (1998).  
**Impact Factor = 4,365; Science Citation Index = 10 (02.05.2013)**



Papers in co-authorship which include the results of experimental work of Dr Abele:

13. Mark D. Goldberg, Roger C. Lo, **Silvija Abele**, Miroslav Macka and Frank A. Gomez, Development of Microfluidic Chips for Heterogeneous Receptor-Ligand Interaction Studies, Analytical Chemistry **2009**, 81 (12), 5095-5098, DOI: 10.1021/ac9006649.

**Impact Factor = 5,874; Science Citation Index = 7 (02.05.2013)**

14. Zicmanis A., Hamaide T., Graillat C., Monnet C., **Abele S.**, Guyot A., Synthesis of new alkyl maleates ammonium derivatives and their uses in emulsion polymerization, Colloid Polym Sci 275 : 1-8 (1997).

**Impact Factor = 2.443; Science Citation Index = 22 (02.05.2013)**

#### **PARTICIPATION in SCIENTIFIC CONFERENCES**

*EXAMPLES only given here from the total of 56*

Presenting author underlined

**International conferences highlighted in bold**

**Invited talks:**

1. **Silvija Abele**, Zarah Walsh, Petr Smejkal, Oksana Yavorska, Zanda Zanriba, Roberts Fedorovskis, Igors Susinskis, Kaspars Kuprevics, Juris Hmelnickis, Raimonds Poplausks, Donats Erts, Frantisek Foret, Mirek Macka, Plenary lecture, Polymeric Monoliths - Synthesis and Application in Separation Science, The 70<sup>th</sup> Scientific Conference of the University of Latvia, Chemistry section, 07.02.2012, Riga, Latvia.
2. **Silvija Abele**, Oksana Yavorska, Petr Smejkal, Frantisek Foret, Mirek Macka, Monolithic Porous Layer Open Tubular (PLOT) Columns Obtained by Evanescent Wave Initiated Photopolymerisation and their Use for on-line Protein Digestion, Invited talk at **International Ion Chromatography Symposium IICS, Dublin, 21-24 September 2009, Ireland.**
3. **S. Abele**, F. Foret, and M. Macka, Photopolymerised monoliths prepared using low UV light emitting diodes as a light source, Talk at **CECE, November 2007, Brno, Czech Republic.**

**Talks:**

4. **Silvija Abele**, Zarah Walsh, Petr Smejkal, Oksana Yavorska, Zanda Zanriba, Roberts Fedorovskis, Raimonds Poplausks, Donats Erts, Igors Susinskis, Kaspars Kuprevics, Juris Hmelnickis, Frantisek Foret, Mirek Macka, Oral presentation, The Story of Polymer Monoliths: From USA to Europe and to Latvia, **International Conference Functional Materials and Nanotechnologies FMNT – 2012 (Riga, Latvia, April 17-20, 2012).**
5. **Silvija Abele**, Zarah Walsh, Oksana Yavorska, Petr Smejkal, Frantisek Foret, Arturs Viksna, Mirek Macka, Monolithic Capillary Columns as Alternative Stationary Phase in Separation Science. Synthesis and Examples of Their Application, Oral presentation (Abstract OP24), **Nordic Separation Science Society 6th Conference, Riga, Latvia, August 24-27, 2011.**
6. **Silvija Abele**, Frantisek Foret, Janusz Pawliszyn, Mirek Macka, Photopolymerised monoliths for separation science obtained using UV-LEDs as light sources, Oral presentation, **ICTBSB, 26-27.01.2009, Dublin, Ireland.**
7. **S. Abele**, D. Bensarsa, L. Leibler and M. Hidalgo, Ductility and transparence of the amorphous copolymers modified by triblocs ABC: Strategies of mixing and investigation of the compatibility of components, **38<sup>th</sup> Congress of the French Rheological Group, Brest, 15-17 October 2003.**

#### Poster presentations:

8. **Silvija Abele**, Zanda Zanriba, Roberts Fedorovskis, Raimonds Poplausks, Donats Erts, Igors Susinskis, Kaspars Kuprevics, Juris Hmelnickis, Zarah Walsh, Frantisek Foret, Mirek Macka, Poster presentation (B18), Styrenic and Methacrylic Monolithic Columns for Separation of By-products of Pharmaceutical Compounds, **36th ISCC Symposium, Riva del Garda, Italy, May 27 - June 1, 2012**.
9. **Silvija Abele**, Zarah Walsh, Oksana Yavorska, Petr Smejkal, Frantisek Foret, Zanda Zanriba, Roberts Fedorovskis, Raimonds Poplausks, Donats Erts, Arturs Viksna, Mirek Macka, Porous Polymer Monoliths as Alternative Column Materials for Chromatography, Poster presentation (Abstract Ref: 458), **10th International Conference on Materials Chemistry 10 (MC10), 4 – 7 July 2011, University of Manchester, UK**.
10. **Silvija Abele**, Oksana Yavorska, Petr Smejkal, Frantisek Foret, Arturs Viksna, Mirek Macka, Different Formats of Monolithic Polymer Materials and Examples of their Application, Poster presentation, **International Conference Functional Materials and Nanotechnologies FMNT – 2011 (Riga, Latvia, April 5-8, 2011)**.
11. **Silvija Abele**, Frantisek Foret, Aine Moyna, Leon Barron, Brett Paull, Mirek Macka, UV-LED Photopolymerised monoliths: from short monolithic columns to open tubular capillary columns and functional surfaces, Poster B.14 in Column technology session, **32rd International Symposium on Capillary Chromatography & Electrophoresis ISCC 2008, Riva del Garda, Italy, May 26-30, 2008**.
12. **S. Abele**, F. Foret, B. Paull, M. Macka, UV-Light emitting diodes as light source for photopolymerisation using total reflection wave guiding and evanescent field, poster, **ISCC, November 2007, Albuquerque, US**.
13. **Silvija Abele**, Emma Harvey, Zarah Walsh, Damian Connolly, Fu-Qiang Nie, Brett Paull, Mirek Macka, Porous Monoliths for Separation Science and Beyond, **Analytical Research Forum RSC, Glasgow (UK), July 16-18, 2007**, Poster presentation P59.

#### TEACHING EXPERIENCE

- 7 years of academic experience in chemistry teaching (Analytical, General chemistry) at the University of Latvia - see above **PROFESSIONAL and RESEARCH EXPERIENCE**, periods 2001-2005 and 2009-2012 in Latvia. Altogether at the University of Latvia 2 Master degree projects and 10 Bachelor degree projects were supervised by S. Abele.
- During Dublin City University period (2006-2009, Ireland) Dr Abele was the practical supervisor of several research projects of PhD students (M. Loane, U. Daņilēvičs, Z. Walsh), Bachelor's projects (M. Grundmann, M. Purcell, M. Norton) and many internship students (E. Mendel, A. Stjernlof, S. Cueff, L. Krcmova, H. Kalabova).

#### ADDITIONAL EXPERIENCE / ACADEMICAL SERVICES

- Member of University Chemistry Faculty Council, June 2010-September 2012
- Expert of the Research Council of Latvia in Physical and Analytical Chemistry, Commission of Mathematics and Natural Sciences, January 2012 - January 2015
- Distance course at the University of Uppsala (Sweden): Quality Assurance with Chemometrics I (Spring 2008, Prof. Kjell Janne, 7.5 credits)
- Member of the Royal Society of Chemistry (UK) since 2007, MRSC
- Member of Senate of University of Latvia, Academic year 2004/2005, Academic commission
- Secretary of Examination commission of the University of Latvia Faculty of Chemistry 2003/2004

Updated 11 September 2013