**CV for Peter Szabo (1967)**

**Degrees:**

**1994 PhD Technical University of Denmark;**

**1991 Msc Technical University of Denmark**

**Positions:**

**2000- : Associate Professor DTU Chemical Engineering; 1997-1999: Assistant Professor DTU Chemical Engineering; 1995-1997: Research Assistant Professor DTU Chemical Engineering; 1994-1995: Research Associate DAMTP University of Cambridge.**

**Research Area:**

**Flow of non-Newtonian fluids. Rheological techniques. Modelling of transport phenomena in polymeric systems. Finite element methods.**

**Memberships of scientific committees, review, positions of trust (selected)**

DTU Board of Governors. Member elected 2009-2012 and 2013-2016.

DTU PhD Committee for Chemistry, Biotechnology and Chemical Engineering. Chairman elected 2015-2017.

Danish Bibliometric Research Indicator (BFI), Group 41 (Chemical Engineering etc.). Chairman 2014-.

Nordic Rheology Society (NRS). Member of the board, President 2000-2004.

Danish Society of Chemical Engineers, IDA Kemi. President 2003- .

Udvalget til Beskyttelse af Videnskabeligt Arbejde (UBVA). Member 2005-2008, 2013-.

**ISI journal publications (WoS): 28; Citations:** 460**; H.index:** 11**; Other publ.: >40; Patents: 1 application 2014.**

**Supervision of PhDs, 2008 – present:**

Runi Ditlev Egholm (2008, main adviser), Anna Frisenfeldt Horn (2012, co-adviser), Kristian Ejlebjærg Jensen (2013, co-adviser), Gry Ravn Jespersen (2014, co-adviser), Jon Trifol Guzman (2012- , main adviser), Ting Song (2015-, main adviser).

**Teaching and Education activities:**

Teacher in courses at bachelor, master and PhD-level at DTU and in the framework of Sino-Danish Center of Research and Education: 23522 (with DTU Food, January), 28016 (responsible, spring and autumn), 28012 (January), 28231 (June), 28908 (responsible), 88701 (SDC, October, Beijing).

**Grants, 2008 – present (ongoing or finished in 2008 or later):**

**2004-2008: Design of Emulsions (FTP, Project Responsible, PhD Runi Ditlev Egholm). 2012-2015: NewGenPak (EU-Marie Curie, Project leader, PhD Jon Trifol Guzman). Other smaller project grants.**

**Research collaboration with industry, 2008 – present:**

**Novo Nordisk (Industrial PhD-project, Gry Ravn Jespersen), Rockwool International (master project), Nordic Sugar A/S (master and bachelor projects), Hempel A/S (master and bachelor projects).**

**Selected publications**

Wágner, DS; Ramin, E; Szabo, P; Dechesne, A; Plósz, BG: Microthrix parvicella abundance associates with activated sludge settling velocity and rheology - Quantifying and modelling filamentous bulking, WATER RESEARCH, vol. 78, pp. 121-132, 2015.

Razak, AHA; Szabo, P; Skov, AL: Enhancement of dielectric permittivity by incorporating PDMS-PEG multiblock copolymers in silicone elastomers, RSC ADVANCES, vol. 5, pp. 53054-53062, 2015.

Mohanty, S; Larsen, LB; Trifol, J; Szabo, P; Burri, HVR; Canali, C; Dufva, M; Emneus, J; Wolff, A:

Fabrication of scalable and structured tissue engineering scaffolds using water dissolvable sacrificial 3D printed moulds, MATERIALS SCIENCE AND ENGINEERING C, vol. 55, pp. 569-578, 2015.

Jensen, KE; Szabo, P; Okkels, F: Optimization of bistable viscoelastic systems, STRUCTURAL AND MULTIDSCIPLINARY OPTIMIZATION, vol. 49, pp. 733-742, 2014.

[Trinh, TN](http://apps.webofknowledge.com.globalproxy.cvt.dk/OneClickSearch.do?product=WOS&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&colName=WOS&SID=S1Yor7MsTe91JqVUF2N&field=AU&value=Trinh,%20TN); [Jensen, PA](http://apps.webofknowledge.com.globalproxy.cvt.dk/OneClickSearch.do?product=WOS&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&colName=WOS&SID=S1Yor7MsTe91JqVUF2N&field=AU&value=Jensen,%20PA); [Dam-Johansen, K](http://apps.webofknowledge.com.globalproxy.cvt.dk/OneClickSearch.do?product=WOS&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&colName=WOS&SID=S1Yor7MsTe91JqVUF2N&field=AU&value=Dam-Johansen,%20K); [Knudsen, NO](http://apps.webofknowledge.com.globalproxy.cvt.dk/OneClickSearch.do?product=WOS&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&colName=WOS&SID=S1Yor7MsTe91JqVUF2N&field=AU&value=Knudsen,%20NO); [Sorensen, HR](http://apps.webofknowledge.com.globalproxy.cvt.dk/OneClickSearch.do?product=WOS&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&colName=WOS&SID=S1Yor7MsTe91JqVUF2N&field=AU&value=Sorensen,%20HR); [Szabo, P](http://apps.webofknowledge.com.globalproxy.cvt.dk/OneClickSearch.do?product=WOS&search_mode=OneClickSearch&excludeEventConfig=ExcludeIfFromFullRecPage&colName=WOS&SID=S1Yor7MsTe91JqVUF2N&field=AU&value=Szabo,%20P): Properties of slurries made of fast pyrolysis oil and char or beech wood, BIOMASS & BIOENERGY, vol. 61, pp. 227-235, 2014.

Jensen, KE; Szabo, P; Okkels, F; Alves, MA: Experimental characterisation of a novel viscoelastic rectifier design, BIOMICROFLUIDICS, vol. 6, article 044112, 2012.

Jensen, KE; Szabo, P; Okkels, F: Topology optimization of viscoelastic rectifiers, APPLIED PHYSICS LETTERS, vol 100, article 234102, 2012.

Szabo, P; McKinley, GH; Clasen, C: Constant force extensional rheometry of polymer solutions, JOURNAL OF NON-NEWTONIAN FLUID MECHANICS, vol. 169, pp. 26-41, 2012.

Egholm, RD; Fischer, P; Feigl, K; Windhab, EJ; Kipka, R; Szabo,P: Experimental and numerical analysis of droplet deformation in a complex flow generated by a rotor-stator device, CHEMICAL ENGINEERING SCIENCE, vol. 63, pp. 3526-3536, 2008.

Roussel, N; Geiker, M; Dufour, F; Thrane, LN; Szabo, P: Computational modeling of concrete flow: General overview, CEMENT AND CONCRETE RESEARCH, vol. 37, pp. 1298-1307, 2007.

Egholm, RD, Christensen, SF; Szabo, P: Stress-strain behavior in uniaxial compression of polymer gel beads, JOURNAL OF APPLIED POLYMER SCIENCE, vol. 102, pp. 3037-3047, 2006.

Szabo, P; Rallison, JM; Hinch, EJ: Start-up of flow of a FENE- fluid through a 4:1:4 constriction in a tube, JOURNAL OF NON-NEWTONIAN FLUID MECHANICS, vol. 72, pp. 73-86, 1997.

Szabo, P: Transient filament stretching rheometer. I. Force balance analysis, RHEOLOGICA ACTA, vol. 36, pp. 277-284, 1997.

Harlen, OG; Rallison, JM; Szabo, P: A split Lagrangian-Eulerian method for simulating transient viscoelastic flows, JOURNAL OF NON-NEWTONIAN FLUID MECHANICS, vol. 60, pp. 81-104, 1995.

Szabo, P; Hassager, O: Flow of viscoplastic fluids in eccentric annular geometries, JOURNAL OF NON-NEWTONIAN FLUID MECHANICS, vol. 45, pp. 149-169, 1992.