Anders Egede Daugaard - DTU Orbit (06/09/2017)

Daugaard, Anders Egede
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Department of Chemical and Biochemical Engineering - Associate Professor
The Danish Polymer Centre

Publications:

Chemically extracted nanocellulose from sisal fibres by a simple and industrially relevant process
Publication: Research - peer-review › Journal article – Annual report year: 2016

Development of a thiol-ene based screening platform for enzyme immobilization demonstrated using horseradish peroxidase
Publication: Research - peer-review › Journal article – Annual report year: 2017

Shape optimization as a tool to design biocatalytic microreactors
Publication: Research - peer-review › Journal article – Annual report year: 2017

Soft and flexible conductive PDMS/MWCNT composites
Publication: Research - peer-review › Journal article – Annual report year: 2017

Synthesis of a novel polyester building block from pentoses by tin-containing silicates
Publication: Research - peer-review › Journal article – Annual report year: 2016

Dielectric electroactive polymer comprising an elastomeric film in the form of a gel
Publication: Research › Patent – Annual report year: 2016

A comparison of partially acetylated nanocellulose, nanocrystalline cellulose, and nanoclay as fillers for high-performance polylactide nanocomposites
Publication: Research - peer-review › Journal article – Annual report year: 2015

Functional bio-based polyesters by enzymatic polymerization
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Highly Branched Bio-Based Unsaturated Polyesters by Enzymatic Polymerization
Publication: Research - peer-review › Journal article – Annual report year: 2016

Hybrid nanocellulose/nanoclay composites for food packaging applications
Publication: Research › Ph.D. thesis – Annual report year: 2016
Hybrid poly(lactic acid)/nanocellulose/nanoclay composites with synergistically enhanced barrier properties and improved thermomechanical resistance
Publication: Research - peer-review › Journal article – Annual report year: 2016

Influence of surface modified nano silica on alkyd binder before and after accelerated weathering
Publication: Research - peer-review › Journal article – Annual report year: 2016

Monolithic PDMS Laminates for Dielectric Elastomer Transducers through Open-Air Plasma Treatment
Publication: Research - peer-review › Journal article – Annual report year: 2015

Polyhydroxyalkanoates (PHA) production from fermented crude glycerol by mixed microbial cultures.
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Selective distribution of enzymes in a microfluidic reactor
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

The Current State of Silicone-Based Dielectric Elastomer Transducers
Publication: Research - peer-review › Review – Annual report year: 2016

Thiol-ene thermosets exploiting surface reactivity for layer-by-layer structures and control of penetration depth for selective surface reactivity.
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Silicone chain extender
Publication: Research › Patent – Annual report year: 2015

A new soft dielectric silicone elastomer matrix with high mechanical integrity and low losses
Publication: Research - peer-review › Journal article – Annual report year: 2015

Aza-Michael addition reaction: Post-polymerization modification and preparation of PEI/PEG-based polyester hydrogels from enzymatically synthesized reactive polymers
Publication: Research - peer-review › Journal article – Annual report year: 2015

Bio-based alkyds by direct enzymatic bulk polymerization
Publication: Research › Ph.D. thesis – Annual report year: 2016

Design of Elastomer Structure to Facilitate Incorporation of Expanded Graphite in Silicones Without Compromising Electromechanical Integrity
Dielectric properties of ultraviolet cured poly(dimethyl siloxane) sub-percolative composites containing percolative amounts of multi-walled carbon nanotubes
Publication: Research - peer-review › Journal article – Annual report year: 2015

Enzymatic polymerization of bio-based monomers for applications in hydrogels and coatings
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Functional silicone copolymers and elastomers with high dielectric permittivity
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Functional silicone elastomers via novel siloxane copolymers and chain extenders
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Nanocellulose fibers applied in PLA composites for food packaging applications
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Optimization of large-scale fabrication of dielectric elastomer transducers
Publication: Research › Ph.D. thesis – Annual report year: 2015

PDMS and MWNT – How to Obtain an Efficient and Controlled Distribution of Conductive Fillers in PDMS
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Preparation and characterization of polyacrylamide-modified kaolinite containing poly [acrylic acid-co-methylene bisacrylamide] nanocomposite hydrogels
Publication: Research - peer-review › Journal article – Annual report year: 2014

Preparing mono-dispersed liquid core PDMS microcapsules from thiol–ene–epoxy-tailored flow-focusing microfluidic devices
Publication: Research - peer-review › Journal article – Annual report year: 2015

Silicone elastomers with high dielectric permittivity and high dielectric breakdown strength based on tunable functionalized copolymers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Novel method to prepare multiwalled carbon nanotube/poly(dimethyl siloxane) (MWCNT/PDMS) non-conducting composites
Goswami, K., Daugaard, A. E. & Skov, A. L. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014
Poly(lauryl acrylate) and poly(stearyl acrylate) grafted multiwalled carbon nanotubes for polypropylene composites
Publication: Research - peer-review › Journal article – Annual report year: 2014

Silicone elastomers with high dielectric permittivity and high dielectric breakdown strength based on dipolar copolymers
Publication: Research - peer-review › Journal article – Annual report year: 2014

Synthesis and characterizations of high permittivity ultraviolet cured soft elastomeric networks and composites applicable as dielectric electroactive polymer
Goswami, K., Skov, A. L. & Daugaard, A. E. 2014 Technical University of Denmark, Department of Chemical and Biochemical Engineering.
Publication: Research › Ph.D. thesis – Annual report year: 2015

Synthesis of telechelic vinyl/allyl functional siloxane copolymers with structural control
Publication: Research - peer-review › Journal article – Annual report year: 2014

Synthetic Strategies for High Dielectric Constant Silicone Elastomers
Publication: Research › Ph.D. thesis – Annual report year: 2015

Tunable Surface Properties of a Conductive PEDOT/EVAL blend
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

UV-Cured, Platinum-Free, Soft Poly(dimethylsiloxane) Networks
Publication: Research - peer-review › Journal article – Annual report year: 2014

Visualisation and characterisation of heterogeneous bimodal PDMS networks
Publication: Research - peer-review › Journal article – Annual report year: 2014

Adhesion between Polydimethylsiloxane Layers by Crosslinking
Publication: Research - peer-review › Journal article – Annual report year: 2013

Development of novel PDMS elastomers for dielectric electroactive polymers (DEAPs)
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Dielektrisk spektroskopi i aktion som nyttigt polymeranalyseværktøj
Publication: Research › Journal article – Annual report year: 2013

Dielektrisk spektroskopi til karakterisering af plastmaterialer
Publication: Research › Journal article – Annual report year: 2013

Dipolar cross-linkers for PDMS networks with enhanced dielectric permittivity and low dielectric loss
Bimodal Networks as Candidates for Electroactive Polymers
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Development of new PDMS based materials for dielectric electroactive polymers (DEAPs) as actuators and generators
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Functionalization of PEDOT by Click Chemistry and ATRP
Hoffmann, C. & Daugaard, A. E. 2012
Publication: Research › Poster – Annual report year: 2012

Functionalization of PEDOT by Click Chemistry and ATRP
Hoffmann, C. & Daugaard, A. E. 2012
Publication: Research › Conference abstract for conference – Annual report year: 2012

Influence of micro- and nanofillers on electro-mechanical performance of silicone EAPs
Publication: Research › Conference article – Annual report year: 2012

Micropatterning of Functional Conductive Polymers with Multiple Surface Chemistries in Register
Publication: Research - peer-review › Journal article – Annual report year: 2012

New Cross-linkers for PDMS Networks
Publication: Research › Conference abstract for conference – Annual report year: 2012

Novel silicone compatible cross-linkers for controlled and well distributed functionalization of PDMS networks
Publication: Research › Conference abstract for conference – Annual report year: 2013

Poly(ethylene-co-butylene) functionalized multi walled carbon nanotubes applied in polypropylene nanocomposites
Publication: Research - peer-review › Journal article – Annual report year: 2012

Role of stoma effluent on adhesion between skin-friendly adhesives and skin
Publication: Research › Conference abstract for conference – Annual report year: 2012

Udvikling af materialer til kunstige muskler
Publication: Research › Journal article – Annual report year: 2012

Unimodal and bimodal networks performance as dielectric electroactive polymers (DEAPs)
Publication: Research › Conference abstract for conference – Annual report year: 2012

Cinnamic Acid Derivatised Poly(Ethylene Glycol) as a Bioinspired UV-Adaptable Material
Publication: Research › Conference abstract for conference – Annual report year: 2011
Dielectric Properties of Poly(ethylene-co-butylene) Modified MWCNT/Polypropylene Composites
Publication: Research › Conference abstract for conference – Annual report year: 2011

Directing functional chemistries on micropatterned conducting polymers for all-polymer cell analysis microsystems
Publication: Research - peer-review › Poster – Annual report year: 2011

Fremstilling af UV-aktive polymerer
Publication: Research - peer-review › Journal article – Annual report year: 2012

Functional Block Copolymers as Compatibilizers for Nanoclays in Polypropylene Nanocomposites
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Influence of micro- and nanofillers on DEAP performance
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Influence of micro- and nanofillers on electro-mechanical performance of silicone EAPs
Publication: Research › Conference abstract for conference – Annual report year: 2012

Microwave assisted click chemistry on a conductive polymer film
Publication: Research - peer-review › Journal article – Annual report year: 2011

Multi Walled Carbon Nanotubes Functionalized by a Solvent Free Method for Application in Polypropylene Nanocomposites
Daugaard, A. E., Jankova Atanasova, K., Christiansen, J. D. C. & Hvilsted, S. 2011
Publication: Research › Conference abstract for conference – Annual report year: 2011

New Cross-linkers for PDMS Networks
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Solvent Composition Directing Click-Functionalization at the Surface or in the Bulk of Azide-Modified PEDOT
Publication: Research - peer-review › Journal article – Annual report year: 2011

Complex Surface Concentration Gradients by Stenciled "Electro Click Chemistry"
Publication: Research - peer-review › Journal article – Annual report year: 2010

"Electro-Click" on Conducting Polymer Films
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2010

Microwave Assited Functionalization of the Conductive Polymer Poly(3,4-ethylenedioxythiophene) by Copper Catalyzed Cycloaddition
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

**Novel UV Initiator for Functionalization of Multiwalled Carbon Nanotubes by Atom Transfer Radical Polymerization Applied on Two Different Grades of Nanotubes**
Publication: Research - peer-review › Journal article – Annual report year: 2010

**Polystyrene Functionalization of an Industrial Grade of Multi Walled Carbon Nanotubes by Atom Transfer Radical Polymerization**
Hvilsted, S., Jankova Atanasova, K. & Daugaard, A. E. 2010
Publication: Research - peer-review › Paper – Annual report year: 2010

**Functional Materials by Click Chemistry**
Publication: Research › Ph.D. thesis – Annual report year: 2009

**Dendronized macromonomers for three-dimensional data storage**
Publication: Research - peer-review › Journal article – Annual report year: 2009

**Dendronized Macromonomers for Volume Holography**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

**Responsive Materials by Click Functionalization of the Conductive Polymer Poly(3,4-ethylenedioxythiophene)**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

**Spatially Selective Functionalization of Conducting Polymers by "Electroclick" Chemistry**
Publication: Research - peer-review › Journal article – Annual report year: 2009

**Unique Sensosr Possibilities by "Click" Modifications of a Conducting Polymer**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

**Conductive Polymer Functionalization by Click Chemistry**
Publication: Research - peer-review › Journal article – Annual report year: 2008

**A Novel Approach to XPS Characterisation of ‘Click’ Surface Chemistry, More Information Less Damage**
Publication: Research › Conference abstract for conference – Annual report year: 2008

**Conductive Polymer Functionalization by Click Chemistry**
Publication: Research › Conference abstract for conference – Annual report year: 2008

**Functionalized Conducting Polymers for Cell Processing**
Publication: Research › Conference abstract for conference – Annual report year: 2008
The influence of pendant carboxylic acid loading on surfaces of statistical poly(4-hydroxystyrene)-co-styrene)s
Daugaard, A. E. & Hvilsted, S. 2008 In : Macromolecular Rapid Communications. 29, 12, p. 1119-1125
Publication: Research - peer-review › Journal article – Annual report year: 2008

Biocompatible Polymeric Materials Intended for Drug Delivery and Therapeutic Applications
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Novel Polymers with a High Carboxylic Acid Loading
Thomsen, A. D., Malmström, E. & Hvilsted, S. 2006 In : Journal of Polymer Science. 44, 21, p. 6360-6377
Publication: Research - peer-review › Journal article – Annual report year: 2006

Projects:

Functional Polysilazanes for Coating Applications
Kristiansen, T., Skov, A. L., Dam-Johansen, K. & Daugaard, A. E.
01/09/2017 → 31/08/2020
Project: PhD

Antimicrobial Polymers for Catheter Coatings
Andersen, C., Daugaard, A. E., Madsen, N. J. & Skov, A. L.
01/01/2017 → 31/12/2019
Project: PhD

The Thermodynamics and Electrochemical Performance of Polymeric Ionic Liquids Gel Composite Electrolyte
Shen, P., Szabo, P. & Daugaard, A. E.
01/01/2017 → 31/12/2019
Project: PhD

Design and Fabrication of Functionalized Ionic Liquid-based Polymeric Composte Membrane for CO2 Separation
Song, T., Szabo, P., Daugaard, A. E., Zhang, S. & Zhang, X.
01/11/2015 → 31/10/2018
Project: PhD

Transition metal catalysis for synthesis of green, renewable, chemical building blocks
Larsen, D. B., Duus, J. Ø., Daugaard, A. E. & Fristrup, P.
01/05/2015 → 30/04/2018
Project: PhD

Modification of polymer surfaces to enhance enzyme activity and stability
Hoffmann, C., Daugaard, A. E., Pinelo, M. & Woodley, J.
01/08/2014 → 31/07/2017
Project: PhD

A chemical approach to avoiding electromechanical instabilities in dielectric electroactive polymer films
01/12/2013 → 15/05/2017
Project: PhD
Supramolecular Polymeric Rheology
Shabbir, A., Hassager, O., Skov, A. L., Daugaard, A. E., Creton, C. & Ianniruberto, G.
01/10/2013 → 14/12/2016
Project: PhD

Microcapsules as delivery vehicles
15/09/2013 → 15/03/2017
Project: PhD

Synthesis and Evaluation of Structures Lipids based Polyurethanes for Sensors, Actuators and Generators through Monte Carlo Simulation
15/01/2013 → 26/05/2016
Project: PhD

Novel clay/nanocellulose biocomposite films and coatings in the context of packaging applications
01/10/2012 → 20/09/2016
Project: PhD

Monolithic structures and their influence on electromechanical breakdown phenomena
01/08/2012 → 03/06/2015
Project: PhD

Synthesis and development of novel coating components for exterior wood applications based on sustainable resources
01/08/2012 → 22/02/2016
Project: PhD

Development of new materials for dielectric electroactive polymers as actuators and generators
Madsen, F. B., Skov, A. L., Daugaard, A. E., Hvilsted, S., Kil, S., Brook, M. A. & Graz, I. M.
15/08/2011 → 26/11/2014
Project: PhD

Development of stimuli-responsive polymer network
01/08/2011 → 17/12/2014
Project: PhD

Large Scale Processing of dielectric electro active polymers
01/08/2011 → 30/09/2014
Project: PhD

Mechanical characterization methods for dielectric electroactive polymers
01/08/2011 → 26/11/2014
Project: PhD

Stimuli-Adaptable Materials
01/05/2009 → 21/05/2013
Project: PhD
**Self-Healing anticorrosive coatings**  
Nesterova, T., Kiil, S., Dam-Johansen, K., Pedersen, L. T., Daugaard, A. E., Rasmussen, S. N. & Zwaag, S. V. D.  
01/01/2009 → 20/08/2012  
Project: PhD

**Micro-sensor based on Click Chemistry**  
Daugaard, A. E., Hvilsted, S., Woodley, J., Binder, W. H. & Hult, A.  
01/03/2006 → 27/05/2009  
Project: PhD

**Activities:**

**Enzymatisk polymerisation anvendt til fremstilling af biobaserede materialer**  
Daugaard, A. E. (Invited speaker)  
26 Oct 2016  
Activity: Talks and presentations › Conference presentations

**Enzymatisk polymerisation anvendt til fremstilling af biobaserede materialer**  
Daugaard, A. E. (Invited speaker)  
Activity: Talks and presentations › Conference presentations

**4th STIPOMAT Conference**  
Daugaard, A. E. (Participant)  
21 Sep 2008 → 24 Sep 2008  
Activity: Attending an event › Participating in or organising a conference