Thomas Eiland Nielsen - DTU Orbit (07/07/2018)

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Department of Chemistry - Professor, Former

Publications:

**Bead-based screening in chemical biology and drug discovery**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Oxidative Modification of Tryptophan-Containing Peptides**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Petasis/Diels-Alder/Cyclization Cascade Reactions for the Generation of Scaffolds with Multiple Stereogenic Centers and Orthogonal Handles for Library Production**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Photolabile Linkers for Solid-Phase Synthesis**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**A broad range quorum sensing inhibitor working through sRNA inhibition**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Accessing Tri-substituted \(\gamma\)-Lactam Scaffolds Via Cascade Reactions: What Opportunities For Libraries!**
Bonnet, K., Clausen, M. H., Fleury-Brégeot, N., Lardy, C., Morgentin, R., Nielsen, T. E., Petersen, M. Å., Rasmussen, M. O., Roche, D. & Wu, P. 2017 In : FASEB Journal. 30, 1
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2017

**A Linker for the Solid-Phase Synthesis of Hydroxamic Acids and Identification of HDAC6 Inhibitors**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Development of a UV-Cleavable Protecting Group for Hydroxylamines, Synthesis of a Structurally Wide Variety of Hydroxamic Acids, and Identification of Histone Deacetylase Inhibitors**
Publication: Research › Ph.D. thesis – Annual report year: 2017

**Diastereoselective Synthesis of Novel Heterocyclic Scaffolds through Tandem Petasis 3-Component/Intramolecular Diels-Alder and ROM-RCM Reactions**
Publication: Research - peer-review › Journal article – Annual report year: 2017
Scaffold Diversity from N-Acyliminium Ions
Publication: Research - peer-review › Journal article – Annual report year: 2017

Solvent-Controlled Chemoselectivity in the Photolytic Release of Hydroxamic Acids and Carboxamides from Solid Support
Publication: Research - peer-review › Journal article – Annual report year: 2017

Synthesis and biological evaluation of dihydropyrano-[2,3-c]pyrazoles as a new class of PPARγ partial agonists
Publication: Research - peer-review › Journal article – Annual report year: 2017

Accessing Tri-substituted γ-Lactam Scaffolds Via Cascade Reactions: What Opportunities For Libraries!
Bonnet, K., Clausen, M. H., Fleury-Brégeot, N., Lardy, C., Morgentin, R., Nielsen, T. E., Petersen, M. A., Rasmussen, M. O., Roche, D. & Wu, P. 2016
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

A metal-catalyzed enyne-cyclization step for the synthesis of bi- and tricyclic scaffolds amenable to molecular library production
Publication: Research - peer-review › Journal article – Annual report year: 2016

Catalytic Enantioselective Synthesis of Tetrahydocarbazoles and Exocyclic Pictet-Spengler-Type Reactions
Publication: Research - peer-review › Journal article – Annual report year: 2016

In-Bead Screening of Hydroxamic Acids for the Identification of HDAC Inhibitors
Publication: Research - peer-review › Journal article – Annual report year: 2016

In-Bead Screening of Hydroxamic Acids for the Identification of HDAC Inhibitors
Publication: Research - peer-review › Journal article – Annual report year: 2016

Small-molecule kinase inhibitors: an analysis of FDA-approved drugs
Publication: Research - peer-review › Journal article – Annual report year: 2016

Synthesis of sp3-rich scaffolds for molecular libraries through complexity-generating cascade reactions
Flagstad, T., Min, G., Bonnet, K., Morgentin, R., Roche, D., Clausen, M. H. & Nielsen, T. E. 2016 In : Organic & Biomolecular Chemistry. 14, 21, p. 4943-4946
Publication: Research - peer-review › Journal article – Annual report year: 2016

Tandem Mannich/Diels–Alder reactions for the synthesis of indole compound libraries
Publication: Research - peer-review › Journal article – Annual report year: 2016

A Four-Component Reaction for the Synthesis of Dioxadiazaborocines
Publication: Research - peer-review › Journal article – Annual report year: 2015
A Photolabile Linker for the Solid-Phase Synthesis of Peptide Hydrazides and Heterocycles
Qvortrup, K., Komnatnyy, V. V. & Nielsen, T. E. 2014 In : Organic Letters. 16, 18, p. 4782-4785
Publication: Research - peer-review › Journal article – Annual report year: 2014

Bacteria-Triggered Release of Antimicrobial Agents
Publication: Research - peer-review › Journal article – Annual report year: 2014

Bacteria-Triggered Release of Antimicrobial Agents
Publication: Research - peer-review › Journal article – Annual report year: 2013

Combining Organometallic Catalysis and Organocatalysis for the Synthesis of Heterocyclic Scaffolds
Publication: Research › Ph.D. thesis – Annual report year: 2015

Comparative Systems Biology Analysis To Study the Mode of Action of the Isothiocyanate Compound Iberin on Pseudomonas aeruginosa
Publication: Research - peer-review › Journal article – Annual report year: 2014

Metal-catalyzed variations on the Pictet-Spengler theme
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Novel 4-component reaction for the synthesis of boron heterocyclic scaffolds
Petersen, M. T., Flagstad, T. & Nielsen, T. E. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Petasis-type reactions for the synthesis of substituted pyrrolidin-2-ones
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Solid-Phase Synthesis and Biological Evaluation of N-Dipeptido L-Homoserine Lactones as Quorum Sensing Activators
Publication: Research - peer-review › Journal article – Annual report year: 2014

Solid-phase synthesis of NH-1,2,3-triazoles using 4,4'-bismethoxybenzhydryl azide
Publication: Research - peer-review › Letter – Annual report year: 2014

Solid-phase synthesis of peptide thiourreas and thiazole-containing macrocycles through ru-catalyzed ring-closing metathesis
Publication: Research - peer-review › Journal article – Annual report year: 2015

Synthesis of 4-Halogenated 3-Fluoro-6-methoxyquinolines: Key Building Blocks for the Synthesis of Antibiotics
Publication: Research - peer-review › Journal article – Annual report year: 2014
Synthesis of a Natural Product-Like Compound Collection through Oxidative Cleavage and Cyclization of Linear Peptides
Publication: Research - peer-review › Journal article – Annual report year: 2014

Synthesis of a Natural Product-Like Compound Collection through Oxidative Cleavage and Cyclization of Linear Peptides.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Synthesis of heterocycles through transition-metal-catalyzed isomerization reactions
Publication: Research - peer-review › Journal article – Annual report year: 2014

Synthesis of Oxacyclic Scaffolds via Dual Ruthenium Hydride/Brønsted Acid-Catalyzed Isomerization/Cyclization of Allylic Ethers
Publication: Research - peer-review › Journal article – Annual report year: 2014

Synthesis of substituted gamma-lactams through petasis-type addition of boronic acids to N-acyliminium ions
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Clearance of Pseudomonas aeruginosa Foreign-Body Biofilm Infections through Reduction of the Cyclic Di-GMP Level in the Bacteria
Publication: Research - peer-review › Journal article – Annual report year: 2013

Design, Synthesis and Biological Evaluation of Quorum Sensing Modulators
Hansen, M. R. & Nielsen, T. E. 2013 Technical University of Denmark, Department of Chemical Engineering. 183 p.
Publication: Research › Ph.D. thesis – Annual report year: 2013

Discovery of a novel selective PPARγ ligand with partial agonist binding properties by integrated in silico / in vitro workflow
Publication: Research - peer-review › Journal article – Annual report year: 2013

Extracellular DNA Shields against Aminoglycosides in Pseudomonas aeruginosa Biofilms
Publication: Research - peer-review › Journal article – Annual report year: 2013

Identification of Five Structurally Unrelated Quorum-Sensing Inhibitors of Pseudomonas aeruginosa from a Natural-Derivative Database
Publication: Research - peer-review › Journal article – Annual report year: 2013

Identification of LasR Ligands through a Virtual Screening Approach
Publication: Research - peer-review › Journal article – Annual report year: 2013

In-bead screening
Nielsen, T. E. & Qvortrup, K. 2013
Photolabile linker for the synthesis of hydroxamic acids
Nielsen, T. E. & Qvortrup, K. 2013
Publication: Research › Patent – Annual report year: 2013

Ruthenium Hydride/Brønsted Acid-Catalyzed Tandem Isomerization/N-Acyliminium Cyclization Sequence for the Synthesis of Tetrahydro-β-carbolines
Publication: Research - peer-review › Journal article – Annual report year: 2013

Solid-phase iminium cyclization reactions for the synthesis of natural product-like diketopiperazines
Petersen, R., Le Quement, S. T. & Nielsen, T. E. 2013 In : Abstracts of Papers of the American Chemical Society. 245, 829-ORGN
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Synthesis and biological evaluation of triazole-containing N-acyl homoserine lactones as quorum sensing modulators
Publication: Research - peer-review › Journal article – Annual report year: 2013

Synthesis of heterocycles through ruthenium-catalyzed ring-closing metathesis and isomerization reactions
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Tandem ring-closing metathesis/isomerization reactions for the total synthesis of violacein
Petersen, M. T. & Nielsen, T. E. 2013 In : Abstracts of Papers of the American Chemical Society. 245, 842-ORGN
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Tandem Ring-Closing Metathesis/Isomerization Reactions for the Total Synthesis of Violacein
Publication: Research - peer-review › Journal article – Annual report year: 2013

Build/Couple/Pair and Multifunctional Catalysis Strategies for the Synthesis of Heterocycles from Simple Starting Materials
Publication: Research › Ph.D. thesis – Annual report year: 2012

Build/Couple/Pair Strategy Combining the Petasis 3-Component Reaction with Ru-Catalyzed Ring-Closing Metathesis and Isomerization
Publication: Research - peer-review › Journal article – Annual report year: 2012

Fluorescence-Based Reporter for Gauging Cyclic Di-GMP Levels in Pseudomonas aeruginosa
Publication: Research - peer-review › Journal article – Annual report year: 2012

Petasis Three-Component Coupling Reactions of Hydrazides for the Synthesis of Oxadiazolones and Oxazolidinones
Publication: Research - peer-review › Journal article – Annual report year: 2012
Solid-Phase Iminium Cyclization Reactions for the Synthesis of Natural Product-Like Diketopiperazines
Publication: Research › Ph.D. thesis – Annual report year: 2012

Solid-Phase Synthesis of Modified Peptides as Putative Inhibitors of Histone Modifying Enzymes
Publication: Research › Ph.D. thesis – Annual report year: 2013

Solid-Phase Synthesis of Structurally Diverse Heterocycles by an Amide–Ketone Condensation/N-Acyliminium Pictet–Spengler Sequence
Publication: Research - peer-review › Journal article – Annual report year: 2012

Solid-supported synthesis: From pharmacologically relevant heterocycles to biologically active surfaces
Publication: Research › Ph.D. thesis – Annual report year: 2012

Synthesis of tetrahydro-β-carbolines via isomerization of N-allyltryptamines: a metal-catalyzed variation on the Pictet–Spengler theme
Publication: Research - peer-review › Journal article – Annual report year: 2012

A convenient procedure for the solid-phase synthesis of hydroxamic acids on PEGA resins
Publication: Research - peer-review › Journal article – Annual report year: 2011

A photolabile linker for the solid-phase synthesis of 4-substituted NH-1,2,3-triazoles
Qvortrup, K. & Nielsen, T. E. 2011 In : Chemical Communications. 47, 11, p. 3278-3280
Publication: Research - peer-review › Journal article – Annual report year: 2011

Chemical synthesis on SU-8
Qvortrup, K., Taveras, K., Thastrup, O. & Nielsen, T. E. 2011 In : Chemical Communications. 47, 4, p. 1309-1311
Publication: Research - peer-review › Journal article – Annual report year: 2011

Levulinic acid derivatives: Building blocks for solid-phase synthesis of diverse heterocyclic scaffolds
Komnatnyy, V. V. & Nielsen, T. E. 2011
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Solid-phase synthesis of an apoptosis-inducing tetrapeptide mimicking the Smac protein
Publication: Research - peer-review › Journal article – Annual report year: 2012

Solid-Phase Synthesis of Smac Peptidomimetics Incorporating Triazoloprolines and Biarylalanines
Publication: Research - peer-review › Journal article – Annual report year: 2011

Synthesis of Heterocycles through a Ruthenium-Catalyzed Tandem Ring-Closing Metathesis/Isomerization/N-Acyliminium Cyclization Sequence
Publication: Research - peer-review › Journal article – Annual report year: 2011
Synthesis of Heterocycles through a Ruthenium-Catalyzed Tandem Ring-Closing Metathesis/Isomerization/N-Acyliminium Cyclization Sequence
Publication: Research - peer-review › Journal article – Annual report year: 2011

N-Acyliminium Intermediates in Solid-Phase Synthesis
Publication: Research - peer-review › Journal article – Annual report year: 2010

Traceless Azido Linker for the Solid-Phase Synthesis of NH-1,2,3-Triazoles via Cu-Catalyzed Azide-Alkyne Cycloaddition Reactions
Publication: Research - peer-review › Journal article – Annual report year: 2010

Small molecules and medicine
Publication: Research › Book chapter – Annual report year: 2009

Solid-phase synthesis of complex and pharmacologically interesting heterocycles
Nielsen, T. E. 2009 In : Current Opinion in Drug Discovery & Development. 12, 6, p. 798-810
Publication: Research - peer-review › Journal article – Annual report year: 2009

An Experimental and Theoretical Study of the Mechanism of Stannylcupration of α,β-Acetylenic Ketones and Esters
Publication: Research - peer-review › Journal article – Annual report year: 2006

Synthesis of the Zoanthamine ABC Ring System: Some Surprises from Intramolecular Diels-Alder Reactions
Publication: Research - peer-review › Journal article – Annual report year: 2006

Pd-Catalyzed Silastannation of Secondary Propargylic Alcohols and Their Derivatives
Nielsen, T. E., Le Quement, S. T. & Tanner, D. A. 2004 In : Synthesis. 9, p. 1381 - 1390
Publication: Research - peer-review › Journal article – Annual report year: 2004

Highly stereoselective addition of stannylcuprates to alkynones
Publication: Research - peer-review › Journal article – Annual report year: 2002

Stereoselective synthesis of (E)-beta-tributylstannyl-alpha,beta-unsaturated ketones: Construction of a key intermediate for the total synthesis of zoanthamine
Nielsen, T. E. & Tanner, D. A. 2002 In : Journal of organic chemistry. 67, 18, p. 6366-6371
Publication: Research - peer-review › Journal article – Annual report year: 2002

Stannylcupration of (alpha, beta)-Unsaturated Ketones
Nielsen, T. E. & Tanner, D. A. 2001
Publication: Research › Poster – Annual report year: 2001

Projects:

Development of receptors for Aqueous Carbohydrate Recognition
Baj, V., Beeren, S., Behrens, C. & Nielsen, T. E.
01/01/2016 → 31/12/2018
Project: PhD
In-Bead Diagnostics and Screening
Væring, P. & Nielsen, T. E.
15/09/2013 → 31/10/2014
Project: PhD
Microfabrication an Chemical Functionalization of Tailor-made Materials for Biomedical Applications
Mortensen, K. T., Qvortrup, K., Nielsen, T. E., Tanner, D. A., Meldal, M. & Spring, D. R.
01/09/2013 → 21/06/2017
Project: PhD
Ruthenium-Catalyzed Tandem RCM/Isomerization Sequences
15/03/2012 → 03/06/2015
Project: PhD
Total synthesis of Sioboldine A
Olsen, L. B., Tanner, D. A., Nielsen, T. E., Duus, J. Ø., Craig, D. & Nielsen, J.
15/03/2012 → 02/09/2015
Project: PhD
Catalysis Orhestration: One Catalysts with multiple modes of Action
01/03/2012 → 03/06/2015
Project: PhD
Ligand assisted Site-Specific Modification of Proteins
01/01/2012 → 30/09/2015
Project: PhD
Synthesis of Antibacterial Tetrahydro-b-Carbolines via Metal-Catalyzed N-Allylamine Isomerization/N-Alkyliminium Cyclization Sequence
01/11/2011 → 04/02/2015
Project: PhD
Synthesis of novel antobacterial agents via combinatorial solid-phase synthesis
Flagstad, T., Tanner, D. A., Nielsen, T. E., Madsen, R., Jensen, K. J. & Ovaa, H.
01/11/2011 → 13/05/2015
Project: PhD
Synthesis of Antomicrobial Natural Product Derivatives on Photlabile Solid Support
Mikkelsen, R. J. T., Tanner, D. A., Nielsen, T. E., Duus, J. Ø., Nielsen, J. & Ovaa, H.
15/10/2011 → 26/05/2016
Project: PhD
Ruthenium-catalyzed tandem reactions
Petersen, M. T., Tanner, D. A., Nielsen, T. E., Clausen, M. H., Skrydstrup, T. & Spring, D. R.
01/09/2011 → 03/06/2015
Project: PhD
Azumamide E and Analogs as Epigenetic Modulators
Maolanon, A., Olsen, C. A., Nielsen, T. E., Poulsen, T. B. & Szpilman, A. M.
01/11/2010 → 07/05/2014
Project: PhD
Organic Synthesis of antimicrobial agents and antibiotics
01/01/2010 → 19/08/2013
Project: PhD

Integrated Chemical Synthesis and Cell Screening in Patient Cells
Taveras, K. & Nielsen, T. E.
15/10/2009 → 31/03/2014
Project: PhD

Diversity-Oriented Synthesis of Small Molecules Targeting Bacterial Biofilm
Komnatnyy, V. V., Nielsen, T. E., Tanner, D. A. & Spring, D. R.
01/08/2009 → 17/12/2012
Project: PhD

Diversity-Oriented Synthesis of Composite Antimicrobial Agents
Ascic, E., Nielsen, T. E., Madsen, R., Nelson, A. S. & Skrydstrup, T.
01/05/2009 → 17/08/2012
Project: PhD

Design, Synthesis and Biological Evaluation of Histone Demethylase Inhibitors
01/03/2009 → 20/08/2012
Project: PhD

Development of New Methods for the Synthesis of Biologically Active small Molecules
Petersen, R., Nielsen, T. E., Tanner, D. A., Jensen, K. J. & Looper, R. E.
01/10/2008 → 18/04/2012
Project: PhD

Tools for Chemical Biology: New Macrocyclic Antibiotics from Diversity Oriented Synthesis
01/04/2007 → 24/11/2010
Project: PhD

Syntetiske GLP-1 analoger
Storgaard, M., Tanner, D. A., Peschke, B., Nielsen, T. E., Greve, D. R. & Rademann, J.
01/01/2007 → 21/04/2010
Project: PhD

Metalorganiske reaktioner med aldehyder og kulhydrater
Monrad, R. N., Madsen, R., Nielsen, T. E., Bols, M. & Thiem, J. E.
01/09/2005 → 25/02/2009
Project: PhD

Alkenyltin Chemistry: Method Development and Applications in Organic Synthesis
Nielsen, T. E., Tanner, D. A., Kjær, A., Madsen, R., Frejd, T. & Skrydstrup, T.
01/03/1999 → 16/07/2002
Project: PhD