Kion Norrman - DTU Orbit (06/01/2019)

Norman, Kion

Research outputs:

Diluted Oxide Interfaces with Tunable Ground States
Research output: Research - peer-review › Journal article – Annual report year: 2019

Preparation of super-hydrophilic polyphenylsulfone nanofiber membranes for water treatments
Research output: Research - peer-review › Journal article – Annual report year: 2019

Advanced functional coatings for smart windows
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

Amorphous saturated Cerium-Tungsten-Titanium oxide nanofibers catalysts for NOx selective catalytic reaction
Research output: Research - peer-review › Journal article – Annual report year: 2018

Chemical Composition and Structure of Adsorbed Material on Pore Surfaces in Middle East Reservoir Rocks
Research output: Research - peer-review › Journal article – Annual report year: 2018

Effect of the sol-gel conditions on the morphology and SCR performance of electrospun V-W-TiO2 catalysts
Research output: Research - peer-review › Journal article – Annual report year: 2018

High-temperature thermoelectric properties of Na- and W-Doped Ca3Co4O9 system
Hira, U., Han, L., Norman, K., Christensen, D. V., Pryds, N. & Sher, F. 2018 In : R S C Advances. 8, 22, p. 12211–12221
Research output: Research - peer-review › Journal article – Annual report year: 2018

Oxygen Exchange and Transport in (La0.6Sr0.4)0.98FeO3-d– Ce0.9Gd0.1O1.95 Dual-Phase Composites
Research output: Research - peer-review › Journal article – Annual report year: 2018

The Impact of Strong Cathodic Polarization on Ni|YSZ Microelectrodes
Research output: Research - peer-review › Journal article – Annual report year: 2018

Tuning the Two-Dimensional Electron Gas at Oxide Interfaces with Ti-O Configurations: Evidence from X-ray Photoelectron Spectroscopy
Research output: Research - peer-review › Journal article – Annual report year: 2018
The Impact of Strong Cathodic Polarization on SOC Electrolyte Materials
Research output: Research - peer-review » Conference abstract in journal – Annual report year: 2016

Dynamic behavior of impurities and native components in model LSM microelectrodes on YSZ
Research output: Research - peer-review » Journal article – Annual report year: 2015

LSM Microelectrodes: Kinetics and Surface Composition
Research output: Research - peer-review » Journal article – Annual report year: 2015

Polarization Induced Changes in LSM Thin Film Electrode Composition Observed by In Operando Raman Spectroscopy and TOF-SIMS
Research output: Research - peer-review » Conference article – Annual report year: 2015

Stability of La0.6Sr0.4Co0.2Fe0.8O3/Ce0.9Gd0.1O2 cathodes during sintering and solid oxide fuel cell operation
Research output: Research - peer-review » Journal article – Annual report year: 2015

TOF-SIMS characterization of impurity enrichment and redistribution in solid oxide electrolysis cells during operation
Research output: Research - peer-review » Journal article – Annual report year: 2014

All polymer photovoltaics: From small inverted devices to large roll-to-roll coated and printed solar cells
Research output: Research - peer-review » Journal article – Annual report year: 2013

Concentrated Light for Accelerated Photo Degradation of Polymer Materials
Research output: Research - peer-review » Journal article – Annual report year: 2013

High purity H2/H2O/Ni/SZ electrodes at 500º C
Research output: Research - peer-review » Journal article – Annual report year: 2013

MoO3–Au composite interfacial layer for high efficiency and air-stable organic solar cells
Research output: Research - peer-review » Journal article – Annual report year: 2013
Development of SOEC Cells and Stacks: Highlights, Challenges and future Perspectives  
Research output: Research › Sound/Visual production (digital) – Annual report year: 2012

Improved adhesion of metal oxide layer  
Research output: Research › Patent – Annual report year: 2012

Improved electron transport layer  
Research output: Research › Patent – Annual report year: 2012

Influence of processing and intrinsic polymer parameters on photochemical stability of polythiophene thin films  
Research output: Research - peer-review › Journal article – Annual report year: 2012

Investigation of the degradation mechanisms of a variety of organic photovoltaic devices by combination of imaging techniques—the ISOS-3 inter-laboratory collaboration  
Research output: Research - peer-review › Journal article – Annual report year: 2012

Low-temperature side-chain cleavage and decarboxylation of polythiophene esters by acid catalysis  
Research output: Research - peer-review › Journal article – Annual report year: 2012

Method of making optoelectric devices  
Krebs, F. C., Jørgensen, M., Norman, K. & Søndergaard, R. 2012 H01L51/005 Apr 2012  
Research output: Research › Patent – Annual report year: 2012

On the stability of a variety of organic photovoltaic devices by IPCE and in situ IPCE analyses – the ISOS-3 inter-laboratory collaboration  
Research output: Research - peer-review › Journal article – Annual report year: 2012

Rapid flash annealing of thermally reactive copolymers in a roll-to-roll process for polymer solar cells  
Helgesen, M., Carlé, J. E., Andreasen, B., Hösel, M., Norma, K., Søndergaard, R. & Krebs, F. C. 2012 In : Polymer Chemistry. 3, 9, p. 2649-2655  
Research output: Research - peer-review › Journal article – Annual report year: 2012

Roll-to-roll processed polymer tandem solar cells partially processed from water  
Research output: Research - peer-review › Conference article – Annual report year: 2011

Simultaneous multilayer formation of the polymer solar cell stack using roll-to-roll double slot-die coating from water  
Stability and degradation of organic photovoltaics fabricated, aged, and characterized by the ISOS 3 inter-laboratory collaboration
Research output: Research - peer-review › Conference article – Annual report year: 2012

Stability of Polymer Solar Cells
Research output: Research - peer-review › Journal article – Annual report year: 2012

The ISOS-3 inter-laboratory collaboration focused on the stability of a variety of organic photovoltaic devices
Research output: Research - peer-review › Journal article – Annual report year: 2011

TOF-SIMS investigation of degradation pathways occurring in a variety of organic photovoltaic devices – the ISOS-3 Inter-laboratory collaboration
Research output: Research - peer-review › Journal article – Annual report year: 2012

Ultrasound enhanced plasma surface modification at atmospheric pressure
Research output: Research - peer-review › Journal article – Annual report year: 2012

50-Hz plasma treatment of glass fibre reinforced polyester at atmospheric pressure enhanced by ultrasonic irradiation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Advanced plasma treatment of polymer surfaces at atmospheric pressure for adhesion improvement
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Aqueous Processing of Low-Band-Gap Polymer Solar Cells Using Roll-to-Roll Methods
Research output: Research - peer-review › Journal article – Annual report year: 2011

Ellipsometry as a Nondestructive Depth Profiling Tool for Roll-to-Roll Manufactured Flexible Solar Cells
Research output: Research - peer-review › Journal article – Annual report year: 2011
Gliding arc surface treatment of glass-fiber-reinforced polyester enhanced by ultrasonic irradiation
Research output: Research › peer-review › Conference article – Annual report year: 2011

Impurity features in Ni-YSZ-H2-H2O electrodes
Research output: Research › peer-review › Journal article – Annual report year: 2011

Oxygen- and water-induced degradation of an inverted polymer solar cell: the barrier effect
Research output: Research › peer-review › Journal article – Annual report year: 2011

Ultrasound enhanced plasma treatment of glass-fibre-reinforced polyester in atmospheric pressure air for adhesion improvement
Research output: Research › peer-review › Journal article – Annual report year: 2011

Water and oxygen induced degradation of small molecule organic solar cells
Research output: Research › peer-review › Journal article – Annual report year: 2011

Degradation Patterns in Water and Oxygen of an Inverted Polymer Solar Cell
Research output: Research › peer-review › Journal article – Annual report year: 2010

Dielectric barrier discharge treatment of glass fibre reinforced polyester (GFRP) in air enhanced by ultrasonic irradiation
Research output: Research › Conference abstract for conference – Annual report year: 2010

Electrochemical investigation of nickel pattern electrodes in H2/H2O and CO/CO2 atmospheres
Research output: Research › peer-review › Journal article – Annual report year: 2010

Stability and Degradation of Polymer Solar cells
Normann, K. 2010
Research output: Research › Conference abstract for conference – Annual report year: 2010

The effect of post-processing treatments on inflection points in current–voltage curves of roll-to-roll processed polymer photovoltaics
Research output: Research › peer-review › Journal article – Annual report year: 2010

The Wear Effect of Hydrophilic Coatings on Hard Implants
Lund Sporring, S., Lauritsen, J. B., Brændsted, P. & Normann, K. 2010
Research output: Research › Conference abstract for conference – Annual report year: 2010

Ultrasound enhanced plasma surface modification at atmospheric pressure
Research output: Research › Conference abstract for conference – Annual report year: 2010
Stability/degradation of polymer solar cells
Research output: Research - peer-review › Journal article – Annual report year: 2008

Structural and chemical investigation of CdSe crystals deposited in a nanoporous sol–gel: Effect of chemistry and defects on photovoltaic properties
Research output: Research - peer-review › Journal article – Annual report year: 2008

Three-dimensional chemical and physical analysis of the degradation mechanisms in organic photovoltaics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Analysis of the failure mechanism for a stable organic photovoltaic during 10 000 h of testing
Research output: Research - peer-review › Journal article – Annual report year: 2007

Covalent grafting of glassy carbon electrodes with diaryliodonium salts: New aspects
Research output: Research - peer-review › Journal article – Annual report year: 2007

Detrimental effect of inert atmospheres on hybrid solar cells based on semiconductor oxides
Research output: Research - peer-review › Journal article – Annual report year: 2007

Effects of trace elements at the Ni/ScYSZ interface in a model solid oxide fuel cell anode.

Lifetimes of organic photovoltaics: Combining chemical and physical characterisation techniques to study degradation mechanisms
Research output: Research - peer-review › Journal article – Annual report year: 2006

Lifetimes of organic photovoltaics: Design and synthesis of single oligomer molecules in order to study chemical degradation mechanisms
Research output: Research - peer-review › Journal article – Annual report year: 2006

Lifetimes of organic photovoltaics: photooxidative degradation of a model compound
Research output: Research - peer-review › Journal article – Annual report year: 2006

Lifetimes of organic photovoltaics: Using TOF-SIMS and $^{18}$O$_2$ isotopic labelling to characterise chemical degradation mechanisms
Research output: Research - peer-review › Journal article – Annual report year: 2006

Oxygen exchange in hybrid solar cells
Norman, K., Lira-Cantu, M. & Krebs, F. C. 2006 Research output: Research › Conference abstract for conference – Annual report year: 2006
Oxygen release and exchange in niobium oxide MEHPPV hybrid solar cells
Research output: Research - peer-review › Journal article – Annual report year: 2006

Time-of-flight secondary ion mass spectrometry as a tool for studying segregation phenomena at nickel-YSZ interfaces
Research output: Research - peer-review › Journal article – Annual report year: 2006

TOF-SIMS analysis of polymers
Norrman, K. 2006
Research output: Research › Conference abstract for conference – Annual report year: 2006

TOF-SIMS studies of yttria-stabilised zirconia
Research output: Research - peer-review › Journal article – Annual report year: 2006

Controlling the Plasma-Polymerization Process of N-Vinyl-2-pyrrolidone
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Chemical degradation mechanisms of organic photovoltaics studied by TOF-SIMS and isotopic labeling
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Electrochemical measurements made in dry CO/CO₂ and H₂/H₂O atmospheres on single crystal YSZ using pattern electrodes
Research output: Research › Article in proceedings – Annual report year: 2005

High purity H₂/O/nickel/stabilized zirconia electrodes at 500 °C
Research output: Research - peer-review › Conference article – Annual report year: 2005

High Purity H₂/O/Nickel/Stabilized Zirconia Electrodes at 500°C
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Isomerization of the protonated acetone dimer in the gas phase
Research output: Research - peer-review › Journal article – Annual report year: 2005

Nucleophilic and electrophilic displacements on covalently modified carbon: introducing 4,4′-bipyridinium on grafted glassy carbon electrodes
Research output: Research - peer-review › Journal article – Annual report year: 2005
Studies of spin-coated polymer films
Research output: Research - peer-review › Journal article – Annual report year: 2005

H₂-H₂O-Ni-YSZ electrode performance
Research output: Research - peer-review › Journal article – Annual report year: 2004

Impurity segregation in yttria-stabilised zirconia in air and in wet 9% H₂/N₂
Research output: Research › Conference abstract for conference – Annual report year: 2004

Photodegradation of poly(ether sulphone). Part 1. A time-of-flight secondary ion mass spectrometry study
Research output: Research - peer-review › Journal article – Annual report year: 2004

Photodegradation of poly(ether sulphone). Part 2.: Wavelength and atmosphere dependence
Norman, K. & Krebs, F. C. 2004 In : Surface and Interface Analysis. 36, 12, p. 1542-1549
Research output: Research - peer-review › Journal article – Annual report year: 2004

TOF-SIMS studies of yttria-stabilised zirconia
Hansen, K. V., Norrman, K. & Mogensen, M. 2004
Research output: Research › Conference abstract for conference – Annual report year: 2004

Vacuum UV of a PPV type polymer and possible PTFE induced orientation
Research output: Research - peer-review › Journal article – Annual report year: 2004

Novel insights on UV degradation of poly(ether sulfone)
Norman, K., Ghanbari-Siahkali, A. & Kingshott, P. 2003
Research output: Research › Conference abstract for conference – Annual report year: 2003

Lateral and vertical quantification of spin-coated polymer films on silicon by TOF-SIMS, XPS, and AFM
Research output: Research - peer-review › Journal article – Annual report year: 2002

Projects:
In-operando localized probing of solid oxide electrolysis/fuel cells by controlled atmosphere high temperature scanning probe microscopy
Forskningsrådsfinansiering
15/03/2015 → 14/06/2018
Project: PhD

Lengthening the Lifetime of R2R-produced Polymer Solar Cells
Programbevilling
01/08/2009 → 24/06/2013
Project: PhD

Degradation of nanoparticle composite solar cells comprising both organic and inorganic materials
Grundforskningsfonden
01/10/2010 → 13/05/2015
Project: PhD

Danish-Chinese Center for Organic based Photovoltaic Cells with Morphology Control
31/08/2010 → 31/08/2016
Project: Research

Activities:

Investigation of photoluminescence emission in Al-N co-doped 6H-SiC by temperature-dependent measurements
Tarekegne, A. T. (Guest lecturer), Norrman, K. (Guest lecturer), Valdas Jokubavicius (Guest lecturer), Mikael Syvajarvi (Guest lecturer), Philipp Schuh (Guest lecturer), P. Wellmann (Guest lecturer), Ou, H. (Guest lecturer)
2 Sep 2018 → 7 Sep 2018
Activity: Talks and presentations › Conference presentations

Water and oxygen induced degradation of R2R manufactured polymer solar cells
Norrman, K. (Speaker)
Activity: Talks and presentations › Conference presentations

Degradation and stability of R2R manufactured polymer solar cells
Norrman, K. (Speaker)
2 Aug 2009 → 6 Aug 2009
Activity: Talks and presentations › Conference presentations

Environmental radioisotopes - the Thule case
Norrman, K. (Speaker)
27 Jul 2009 → 30 Jul 2009
Activity: Talks and presentations › Conference presentations