Yang Zhang - DTU Orbit (17/02/2019)

Zhang, Yang

yazh@mek.dtu.dk

Department of Mechanical Engineering - Senior Researcher

Manufacturing Engineering

Research outputs:

Experimental investigation and thermo-mechanical modelling for tool life evaluation of photopolymer additively manufactured mould inserts in different injection moulding conditions

Research output: Research - peer-review › Journal article – Annual report year: 2019

A method for the characterization of the reflectance of anisotropic functional surfaces
Regi, F., Nielsen, J. B., Li, D., Zhang, Y., Frisvad, J. R., Aanæs, H. & Tosello, G. 2018 In : Surface Topography: Metrology and Properties. 6, 3, 7 p., 034005

Research output: Research - peer-review › Journal article – Annual report year: 2018

A Soft Tooling Process Chain for Injection Molding of a 3D Component with Micro Pillars
Zhang, Y., Pedersen, D. B., Mischkot, M., Calaon, M., Baruffi, F. & Tosello, G. 2018 In : Journal of Visualized Experiments. 138, 7 p., e57335

Research output: Research - peer-review › Journal article – Annual report year: 2018

Assessment of sub-mm features replication capability in injection moulding using a multi-cavity tool produced by additive manufacturing

Research output: Research - peer-review › Poster – Annual report year: 2018

Assessment of sub-mm features replication capability in injection moulding using a multi-cavity tool produced by additive manufacturing

Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

A study of laser surface modification of polymers: A comparison in air and water

Research output: Research - peer-review › Journal article – Annual report year: 2018

Comparison of selected processes for surface microstructuring of complex mould for an implanted device

Research output: Research - peer-review › Journal article – Annual report year: 2018

Dimensional Accuracy and Repeatability of 3D Printed Mould Inserts by DLP

Research output: Research - peer-review › Poster – Annual report year: 2018

Dimensional Accuracy and Repeatability of Mould Inserts Manufactured by Mask Projection Vat-Photopolymerization

Research output: Research - peer-review › Poster – Annual report year: 2018

Evaluation of an improved micro milling strategy for the generation of tool steel micro features with optical functionality
Evaluation of part consistency with photopolymer inserts in different injection moulding process parameters
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Investigation of product and process fingerprints for fast quality assurance in injection molding of micro-structured components
Giannekas, N., Kristiansen, P. M., Zhang, Y. & Tosello, G. 2018 In : Micromachines. 9, 12, 23 p., 661
Research output: Research - peer-review › Journal article – Annual report year: 2018

Modeling of nanosecond pulsed laser processing of polymers in air and water: Paper
Research output: Research - peer-review › Journal article – Annual report year: 2018

On the effect of machining strategy in micro milling of tool steel surface micro features with optical functionality
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Pitch measurements validation of a structural coloured steel insert using Scanning Confocal Microscopy (SCM) and Atomic Force Microscopy (AFM)
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Pitch measurements validation of steel inserts micro-grooves with light diffractive properties using a Laser Scanning Confocal Microscope (LSCM) and an Atomic Force Microscope (AFM)
Research output: Research - peer-review › Poster – Annual report year: 2018

A comparison of reflectance properties on polymer micro-structured functional surface
Research output: Research - peer-review › Poster – Annual report year: 2017

A preliminary study on replication and quality correlation of on-part and on-runner polymer injection moulded micro features
Giannekas, N., Tosello, G. & Zhang, Y. 2017
Research output: Research - peer-review › Poster – Annual report year: 2017

A Soft Tooling process chain employing Additive Manufacturing for injection molding of a 3D component with micro pillars
Research output: Research - peer-review › Journal article – Annual report year: 2017

A study on replication and quality correlation of on-part and on-runner polymer injection molded micro features
Research output: Research - peer-review › Paper – Annual report year: 2017

Evaluation of optical functional surfaces on the injection moulding insert by micro milling process
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

**Influence of Injection-Molding Process Parameters on Part Replication of Microstructures with Additively-Manufactured Soft Tooling Inserts**


Research output: Research - peer-review › Paper – Annual report year: 2017

**Injection Moulding Pilot Production: Performance Assessment of Tooling Process Chains Based on Tool Inserts Made from Brass and A 3d Printed Photopolymer**


Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

**Investigation of Tooling for Anisotropic Optical Functional Surfaces**


Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

**Modeling the Anisotropic Reflectance of a Surface with Microstructure Engineered to Obtain Visible Contrast after Rotation**


Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

**Process chain for fabrication of anisotropic optical functional surfaces on polymer components**


Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

**The impact of tool wear on the functionality of replicated polymer surface with micro structures**


Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

**Tolerances in micro manufacturing**


Research output: Research - peer-review › Paper – Annual report year: 2017

**A computational model for heterogeneous heating during pulsed laser irradiation of polymers doped with light-absorbing microparticles**


Research output: Research - peer-review › Journal article – Annual report year: 2016

**Adaptive Layer Height During DLP Materials Processing**


Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

**A Self-Peeling Vat for Improved Release Capabilities During DLP Materials Processing**


Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

**Improvement in Surface Characteristics of Polymers for Subsequent Electroless Plating Using Liquid Assisted Laser Processing**
An Explanation of the Selective Plating of Laser Machined Surfaces using Surface Tension Components
Zhang, Y., Kontogeorgis, G. & Hansen, H. N. 2011 In : Journal of Adhesion Science and Technology. 25, p. 2101-2111
Research output: Research - peer-review › Journal article – Annual report year: 2011

Selective metallization of polymers using laser induced surface activation (LISA)—characterization and optimization of porous surface topography
Research output: Research - peer-review › Journal article – Annual report year: 2011

Characterization of Laser Machined Polymer Surface Using Bearing Area Curve Parameters for Future Plating
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Electroless Plating on Plastic Induced by Selective Laser Activation
Research output: Research - peer-review › Conference article – Annual report year: 2010

Laser Induced Selective Activation For Subsequent Autocatalytic Electroless Plating
Zhang, Y. 2010 DTU Mechanical Engineering.
Research output: Research › Ph.D. thesis – Annual report year: 2010

Electroless Plating on Plastic Induced by Selective Laser Activation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

LASER INDUCED SELECTIVE ACTIVATION UTILIZING AUTO-CATALYTIC ELECTROLESS PLATING ON POLYMER SURFACE
Zhang, Y., Nielsen, J. S., Tang, P. T. & Hansen, H. N. 2009 LASER INDUCED SELECTIVE ACTIVATION UTILIZING AUTO-CATALYTIC ELECTROLESS PLATING ON POLYMER SURFACE.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Projects:

End-of-Life-Tires Rubber Recycling and Powder Injection Moulding
Basso, A., Zhang, Y., Hansen, H. N. & Linnemann, L.
01/01/2019 → 31/12/2021
Project: PhD

Integrating Micro and Nano structures on Steel Surfaces - Process Chain Implementation and Validation
Loaldi, D., Tosello, G., Calaon, M. & Zhang, Y.
Grundforskingsfonden
15/09/2017 → 14/09/2020
Project: PhD

Process chains to manufacture micro structures on 3D surfaces by replication
Li, D., Zhang, Y., Bissacco, G., Davoudinejad, A., Tang, P. T. & Tosello, G.
Privatist
01/09/2016 → 31/08/2019
Project: PhD
Process technologies for functional anisotropic surfaces generation in Quick Response Code applications
Regi, F., Zhang, Y. & Tosello, G.
Samfinansieret - Andet
01/08/2016 → 31/07/2019
Project: PhD

Precision Injection Moulding of Micro Features using Integrated Process/Product Quality Assurance
Samfinansieret - Andet
01/01/2016 → 28/02/2019
Project: PhD

New production paradigms for wind turbines
Industrial PhD
01/09/2015 → 14/02/2019
Project: PhD

Laser Induce Selective Activation For Subsequent Autocatalytic Electroless Plating
DTU-lønnet stipendie
01/10/2007 → 02/02/2011
Project: PhD

Micro Injection Moulding for Micro Fuel cells Production
Institut, samfinansiering
15/12/2012 → 25/11/2016
Project: PhD

Activities:

Feasibility study on integrated process/product quality assurance framework for precision injection moulding based on vibration monitoring
Giannekas, N. (Other), Rene Gammelby (Other), Tosello, G. (Other), Dmitri Tcherniak (Other), Zhang, Y. (Other)
29 May 2017 → 31 May 2017
Activity: Talks and presentations › Conference presentations

A preliminary study on replication and quality correlation of on-part and on-runner polymer injection moulded micro features
Giannekas, N. (Guest lecturer), Tosello, G. (Other), Zhang, Y. (Other)
7 May 2017 → 9 May 2017
Activity: Talks and presentations › Conference presentations