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Scientin Materials Science & Engineering

Material Forming CATALOGUE

2023

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Materials Science & Engineering

Welcome

The progress of industrial production is hard to imagine without the involvement of different materials and processing technologies. Material forming is an integral part of processing in the majority of industries such as engineering, construction, automotive, aerospace, appliances and many more. Over the last decades, more and more attention has been paid to improvements in forming and joining technologies. In particular, improvements relating to new methods, efficiencies, sustainability, energy saving, etc. The latter being more important than ever before.

Herewith we introduce to you the "Material Forming Catalogue", a collection of books which cover the results of prominent conferences in this field since 2005: ESAFORM, MEFORM, SheMet, EuroSPF and more.

The collection offers around 18 500 pages of research outputs and engineering solutions having particular importance and being of practical use to a wide range of engineers, material scientists and those involved in production industries.

All titles are available for purchase as a collection or separately both in print as well as an eBook. Available as/for institutional/organization-wide access or individual purchasing & access. To explore the content of the Catalogue, you are welcome to preview the comprised titles for which more extensive and detailed descriptions as well as Table-of-Contents are available.

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Trans Tech Publications Ltd. strives to meet the high expectations of customers and partners via efficient service and high-quality products.

Anne-Kristin Wohlbier, CEO



Achievements and Trends in Material Forming

Peer-reviewed extended papers selected from the 25th International Conference on Material Forming (ESAFORM 2022), April 27-29, 2022, Portugal

Edited by: Gabriela Vincze and Frédéric Barlat

This book contains papers presented at the 25th International Conference on Material Forming (ESAFORM 2022, 27-29 April 2022, Portugal). The European Scientific Association for material FORMing - ESAFORM - is a non-profit scientific association founded in January 1997 with the aim of propagating knowledge and advances in topics connected to forming processes for all types of structural materials. The present volume covers a wide range of research results and engineering solutions in technologies of materials forming and will be useful for many researchers and engineers from the machinery production area.

Topics: Information Technologies, Manufacturing, Materials Science, Mechanics

Additive Manufacturing, Alloy, Composite, Cutting, Drawing, Electrical Discharge Machining, Embossing, Keywords: Extrusion, Forging, Formability, Forming, Friction Stir Extrusion, Friction Stir Welding, Incremental Forming,

Inverse Analysis, Joining, Machining, Material Behaviour, Material Parameter, Modelling, Numerical Evaluation,

Polymer, Rolling, Sheet Metal Forming, Steel, Sustainability

US\$ 275.00/ EUR 275.00 Print: 978-3-0357-1759-4 Prices: Print:

eBook Single-User: US\$ 0.00/ EUR 0.00 eBook: 978-3-0357-3750-9 US\$ 0.00/ EUR 0.00 eBook Multi-User: 2454 pages,

2022

Sheet Metal 2021



Selected, peer-reviewed papers from the 19th International Conference on Sheet Metal (SheMet 2021), March 29-31, 2021, Erlangen, Germany

Edited by: M. Merklein, J. Duflou, L. Fratini, H. Hagenah, P. Martins, G. Meschut and F. Micari



This volume holds selected papers of the 19th International Conference on Sheet Metal 2021, which provided an excellent platform for the exchange of knowledge for scientists and industry representatives from all over the world. The conference addressed current research and future trends concerning topics related to sheet metals. Besides innovative mechanical joining technologies and the latest developments concerning bonding and welding, the wide-ranging field of sheet metal forming was one of the major issues of the conference. Moreover, SheMet 2021 dealt with research activities regarding incremental forming. As manufacturing technologies are closely associated with the materials to be processed, characterization also represented a key topic.

Topics: Building Materials, Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Alloy, Bending, Bonding, Forming, Friction, Hardness, Incremental Forming, Joining, Mechanical Properties,

Rolling, Sheet Metal, Simulation, Steel, Stress, Surface, Welding

US\$ 297.00/ EUR 297.00 Print: 978-3-0357-1693-1 Prices: Print:

eBook Single-User: US\$ 198.00/ EUR 198.00 eBook: 978-3-0357-3693-9

eBook Multi-User: US\$ 347.00/ EUR 347.00 332 pages, 2021

https://www.scientific.net/978-3-0357-1693-1/book

https://www.scientific.net/978-3-0357-1759-4/book



Superplastic Forming

Selected, peer-reviewed papers from the 13th European Conference on Superplastic Forming (EuroSPF 2019), September 11-13, 2019, Matera, Italy

Edited by: Prof. Donato Sorgente and Gianfranco Palumbo

The book includes some of the works presented in the 13th European Conference on Superplastic Forming (EuroSPF 2019). The EuroSPF Conference is focused on all aspects related to Super Plastic Forming and SPF/DB (Super Plastic Forming/Diffusion Bonding). The purpose of the annual EuroSPF Conference is to act as a platform for transfer of knowledge between academic and industrial leaders in the field of SPF including material science, process simulation, press design, die optimisation, part manufacturing, innovative low cost processes modelling, tool design, lubrication, industrial applications of SPF and similar topics.

Topics: Manufacturing, Materials Science, Mechanics

Quick Superplastic, Superplastic, Superplastic Alloy, Superplastic Behavior, Superplastic Bulging, Superplastic **Keywords:**

Condition, Superplastic Flow, Superplastic Forming, Superplastic Materials, Superplastic Mechanism,

Superplastic Response, Superplastic Ti-6Al-4V, Superplastic-Like

Prices: US\$ 74.00/ EUR 74.00 Print: 978-3-0357-1621-4

US\$ 110.00/ EUR 110.00 eBook: 978-3-0357-3621-2 eBook Single-User:

eBook Multi-User: US\$ 193.00/ EUR 193.00 74 pages, 2020

https://www.scientific.net/978-3-0357-1621-4/book



Simulation-Based Technology Development for Material Forming

Selected, peer reviewed papers from the conference MEFORM 2019. March 20th to 21st, 2019, Freiberg / Saxony

Edited by: Rudolf Kawalla, Ulrich Prahl, Matthias Schmidtchen and Nico Kaden

"Simulation-based technology development for metal forming" is a compilation of selected conference papers presented at the metal forming conference MEFORM 2019, that has taken place from March 20th to 21st, 2019 in Freiberg / Saxony. The publication addresses to engineers as wells as to representatives of R&D institutions and technical education aiming for simulation-based technology development in the metalworking industries. It provides insights and information about new simulation approaches to support the development of materials and forming technologies for light or heavy metals and material characterization. The models range from fast models for material flow and load prediction to time-consuming multiscale approaches, including microstructure evolution and the resulting mechanical properties.

Topics: Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Forming, Materials Modelling, Microstructure Characterization, Process Modelling, Rolling, Simulation,

Technology Development

Prices: Print: **US\$ 146.00 / EUR 146.00** Print: 978-3-0357-1495-1

eBook Single-User: **US\$ 165.00/ EUR 165.00** eBook: 978-3-0357-3495-9

eBook Multi-User: US\$ 289.00/ EUR 289.00 146 pages, 2019

https://www.scientific.net/978-3-0357-1495-1/book



Resource Efficient Material and Forming Technologies

Selected, peer reviewed papers from the 26th MEFORM Conference, Resource Efficient Materials and Forming Technologies, March 21-23, 2018, Freiberg, Germany

Edited by: Rudolf Kawalla, Ulrich Prahl, Marie Moses, Heike Wemme, Johannes Luft and Markus Kirschner

"Resource Efficient Material and Forming Technologies" is a compilation of selected conference papers presented at the metal forming conference MEFORM 2018, that has taken place from 21st to 23rd of March 2018 in Freiberg / Saxony. The publication is for engineers as wells as for representatives of R&D institutions and technical education aiming to resource-efficient production in the metalworking industries. It provides insights and information about new materials and technological developments for metals and forming technologies. Topics concern current trends in the field of light metals, steel and nonferrous metals, energy-efficient production processes, new developments in the rolling, forging and heat treatment techniques, technological processes modelling and designing of the plant concept.

Topics: Manufacturing, Materials Science, Mechanical Engineering

Keywords: Forging, Heat Treatment, Light Metals and Alloys, Process Modelling, Resource Efficiency, Rolling, Steels and

Nonferrous Metals, Technology Development, Twin-Roll Casting

Prices: Print: **US\$ 154.00**/ **EUR 154.00** Print: 978-3-0357-1297-1

eBook Single-User: **US\$ 154.00 / EUR 154.00** eBook: 978-3-0357-3297-9

eBook Multi-User: **US\$ 270.00/ EUR 270.00** 176 pages, 2018

https://www.scientific.net/978-3-0357-1297-1/book



New Developments in Wire Production and Processing

Selected, peer reviewed papers from the 25th MEFORM Conference «New Developments in Wire Production and Processing», March 15-16, 2017, Freiberg, Germany

Edited by: Rudolf Kawalla, Rosita Schmidtchen and Anja Oswald

This publication addresses to engineers of wire production industries and representatives of R&D institutions and technical education, as well, providing insights and information about new materials and technological developments for wire production and processing. Topics concerning rolling, drawing and heat treatment of wires and wire products, plants and technologies for high-end production, as well as process modelling and aspects of quality assurance are treated.

Topics: Materials Science, Mechanical Engineering

Keywords: Materials Properties, Measurement, Modeling, Quality Assurance, Technologies of Wire and Rod Production

Prices: Print: **US\$ 108.00**/ **EUR 108.00** Print: 978-3-0357-1133-2

eBook Single-User: **US\$ 143.00 / EUR 143.00** eBook: 978-3-0357-3133-0

eBook Multi-User: US\$ 250.00/ EUR 250.00 108 pages, 2017

https://www.scientific.net/978-3-0357-1133-2/book



Metal Forming 2016

Selected, peer reviewed papers from the 16th Metal Forming International Conference, September 18-21, 2016, Kraków, Poland

Edited by: Danuta Szeliga and Krzysztof Muszka

This volume of Key Engineering Materials contains papers presented at the 16th Metal Forming International Conference held in Kraków, Poland on September 18-21, 2016. Metal Forming 2016 is the 16th in a series of International Conferences organized by AGH University of Science and Technology since 1974. From 1994 to 2010 the Conference was organized biannually, jointly with the University of Birmingham, UK. The latter was replaced by the University of Toyohashi in 2010, when the Conference went, for the first time, to Japan. Metal Forming 2012 was organized in Kraków by AGH University of Science and Technology, together with the University of Toyohashi and, for the first time, by the University of Palermo, Italy, which had joined the Organization team, and hosted the Conference in 2014.

The papers published in this volume represent the state-of-the-art in the field of metal forming science and technology. The contents of papers submitted by authors representing universities, research institutes and industry from all over the world demonstrate the results of a very wide spectrum of research topics, from micro- and nano- forming, to the numerical modelling of processes and systems. Manuscripts cover a wide range of materials from metal powders, titanium and magnesium alloys to advanced high strength steels and multiphase materials.

Topics: Industrial Engineering, Information Technologies, Materials Science, Mechanical Engineering, Mechanics

Keywords: Drawing, Extrusion, Formability, Hydroforming, Metal Forming, Micro-, Nano- Forming, Numerical Modelling,

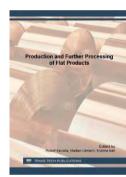
Rolling, Sheet Forming, Tube

Prices: Print: **US\$ 567.00/ EUR 567.00** Print: 978-3-03835-704-9

eBook Single-User: US\$ 198.00/ EUR 198.00 eBook: 978-3-0357-0192-0

eBook Multi-User: **US\$ 347.00/ EUR 347.00** 1030 pages, 2016

https://www.scientific.net/978-3-03835-704-9/book



Production and Further Processing of Flat Products

Selected, peer reviewed papers from the International Conference MEFORM 2016 – Production and Further Processing of Flat Products, March 16-18, 2016, Freiberg, Germany

Edited by: Rudolf Kawalla, Madlen Ullmann, Kristina Neh

The book summarizes current research and recent developments within the field of production and further processing of flat products. The main topics include new technologies and materials as well as mathematical modelling and simulation of processes and consider industrial issues in the same extend as main research of universities. Based on the close collaboration between industry, research and science the acquisition of research results and their rapid implementation are provided. The papers of this book have been carefully selected after an expertly review by a scientific committee evaluating scientific excellence, relevance and originality. Consequently, this book mainly serves to provide knowledge building and knowledge sharing for users, researches as well as students.

Topics: Industrial Engineering, Information Technologies, Materials Science, Mechanical Engineering, Mechanics

Keywords: Annealing, Flat Products, Mathematical Modelling, Plant Layout, Rolling Technology, Simulation, Thermo-

Mechanical Treatment, Thin Slab/Thin Strip Cast Rolling, Twin Roll Casting

Prices: Print: **US\$ 231.00 / EUR 231.00** Print: 978-3-03835-615-8

eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-0091-6

eBook Multi-User: US\$ 347.00 / EUR 347.00 274 pages, 2016

https://www.scientific.net/978-3-03835-615-8/book



Material Forming ESAFORM 2015

Selected, peer reviewed papers from the 18th International ESAFORM Conference on Material Forming (ESAFORM 2015), April 15-17, 2015, Graz, Austria

Edited by: Aldo Ofenheimer, Assoc. Prof. Dr. Cecilia Poletti, Daniela Schalk-Kitting and Christof Sommitsch

Collection of selected, peer reviewed papers from the 18th International ESAFORM Conference on Material Forming (ESAFORM 2015), April 15-17, 2015, Graz, Austria.

The 252 papers are grouped as follows:

Chapter 1: Formability of Metallic Materials;

Chapter 2: Forging and Rolling;

Chapter 3: Composites Forming Processes;

Chapter 4: Friction and Wear in Material Processing;

Chapter 5: Continuum Constitutive Modelling and Scale Transition Modelling;

Chapter 6: Nano-Structured Materials and Micro Forming;

Chapter 7: Additive Manufacturing and Non-Conventional Processes;

Chapter 8: Structures, Properties and Processing of Polymers (and Biomass Based Materials); Chapter 9: Integrated Design, Modelling and Reliability Assessment in Forming (I-DMR);

Chapter 10: Small Scale Plasticity, Damage and Fracture; Chapter 11: Intelligent Computation in Forming Processes;

Chapter 12: Incremental and Sheet Metal Forming;

Chapter 13: Machining and Cutting;

Chapter 14: New and Advanced Numerical Strategies for Material Forming;

Chapter 15: Optimization and Inverse Analysis in Forming; Chapter 16: Innovative Joining by Forming Technologies;

Chapter 17: Heat Transfer Modelling; Chapter 18: Semi-Solid Processes; Chapter 19: Extrusion and Drawing;

Chapter 20: Energy Efficient Solutions in Material Forming

Topics: Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Damage, Formability, Fracture, Material Forming, Plasticity, Simulation, Virtual Development

Prices: Print: **US\$ 561.00 / EUR 561.00** Print: 978-3-03835-471-0

eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-03826-933-5

eBook Multi-User: US\$ 347.00/ EUR 347.00 1660 pages, 2015

https://www.scientific.net/978-3-03835-471-0/book



Sheet Metal 2015

Selected, peer reviewed papers from the 16th International Conference on Sheet Metal (SheMet 2015), March 16-18, 2015, Erlangen-Nürnberg, Germany

Edited by: M. Merklein, Joost R. Duflou, Alan G. Leacock, Fabrizio Micari and Hinnerk Hagenah

SHEET METAL 2015 Collection of selected, peer reviewed papers from the 16th International Conference on Sheet Metal (SheMet 2015), March 16-18, Erlangen-Nürnberg, Germany.

The 70 papers are grouped as follows:

Chapter 1: Keynote;

Chapter 2: Forming;

Chapter 3: Bending;

Chapter 4: Incremental Forming;

Chapter 5: Hot Stamping;

Chapter 6: Sheet-Bulk Metal Forming;

Chapter 7: Materials Testing;

Chapter 8: Modelling;

Chapter 9: Cutting and Joining;

Chapter 10: Planning;

Chapter 11: MatProFuture

Topics: Industrial Engineering, Materials Science, Mechanical Engineering

Keywords: Forming of Sheet Metal, Hot Stamping, Incremental Forming, Materials Testing, Modelling, Sheet Metal, Sheet-

Bulk Metal Forming

Prices: Print: **US\$ 308.00/ EUR 308.00** Print: 978-3-03835-450-5

eBook Single-User: **US\$ 198.00 / EUR 198.00** eBook: 978-3-03826-911-3

eBook Multi-User: US\$ 347.00 EUR 347.00 594 pages, 2015

https://www.scientific.net/978-3-03835-450-5/book



Metal Forming 2014

Selected, peer reviewed papers from the 15th International Conference on Metal Forming 2014, September 21-24, 2014, Palermo, Italy

Edited by: Fabrizio Micari and L. Fratini

Collection of selected, peer reviewed papers from the 15th International Conference on Metal Forming 2014, September 21-24, 2014, Palermo, Italy .

The 159 papers are grouped as follows:

- 1. COATINGS AND SURFACES,
- 2. EXTRUSION AND DRAWING,
- 3. FORGING.
- 4. FORMABILITY,
- 5. INCREMENTAL FORMING,
- 6. JOINING AND BONDING,
- 7. MAGNESIUM FORMING,
- 8. NUMERICAL MODELLING,
- 9. TUBE AND HYDRO FORMING,
- 10. OPTIMISATION,
- 11. OTHER PROCESSES,
- 12. POWDER AND ADVANCED MATERIALS,
- 13. ROLLING,
- 14. SHEARING,
- 15. SHEET METAL FORMING.
- 16. TITANIUM FORMING

Topics: Materials Science, Mechanics

eBook Multi-User:

Advanced Materials, Bonding, Coatings, Drawing, Extrusion, Forging, Formability, Hydro Forming, Incremental **Keywords:**

Forming, Joining, Magnesium Forming, Numerical Modelling, Optimisation, Powder, Rolling, Shearing, Sheet

Metal Forming, Surfaces, Titanium Forming, Tube

Prices: US\$ 561.00/ EUR 561.00 Print: 978-3-03835-193-1

US\$ 347.00/ EUR 347.00

US\$ 198.00/EUR 198.00 eBook Single-User: eBook: 978-3-03826-576-4

1358 pages, 2014

https://www.scientific.net/978-3-03835-193-1/book



Material Forming ESAFORM 2014

Selected, peer reviewed papers from the 17th Conference of the European Scientific Association on Material Forming (ESAFORM 2014), May 7-9, 2014, Espoo, Finland

Edited by: Jari Larkiola

The Annual ESAFORM (European Scientific Association for Material Forming) conference brings together scientists and engineers working on all material forming processes with all types of materials.

Volume is indexed by Thomson Reuters CPCI-S (WoS).

The topics cover range from fundamental aspects and modelling, to practical engineering applications. This proceeding contains selected, peer reviewed papers from the 17th Conference of the European Scientific Association on Material Forming, ESAFORM 2014, May 7-9, 2014, Espoo, Finland

Topics: Materials Science, Mechanical Engineering, Mechanics

Keywords: Composites, Formability, Forming Processes, Heat Transfer Modelling, Material Forming, Metals, Modelling,

Polymers

Prices: Print: US\$ 561.00/ EUR 561.00 Print: 978-3-03835-106-1

eBook Single-User: US\$ 198.00/ EUR 198.00 eBook: 978-3-03826-487-3

1900 pages, eBook Multi-User: US\$ 347.00/ EUR 347.00

2014

https://www.scientific.net/978-3-03835-106-1/book



The Current State-of-the-Art on Material Forming

Selected, peer reviewed papers from the 16th ESAFORM Conference on Material Forming, April 22-24, 2013, Aveiro, Portugal

Edited by: Ricardo Alves de Sousa and Robertt Valente

Volume is indexed by Thomson Reuters CPCI-S (WoS).

The collection of 282 peer reviewed papers aims to promote the interest for all types of materials and all topics connected to Material Forming.

The papers are grouped as follows:

Chapter 1: Formability of Metallic Materials

Chapter 2: Forging and Rolling;

Chapter 3: Composites Forming Processes;

Chapter 4: Semi-Solid Processes;

Chapter 5: Light Weight Design and Energy Efficiency in Metal Forming;

Chapter 6: New and Advanced Numerical Strategies for Material Forming;

Chapter 7: Extrusion and Drawing;

Chapter 8: Friction and Wear in Material Processing; Chapter 9: Nano-Structured Materials and Microforming;

Chapter 10: Inverse Analysis Optimization and Stochastic Approaches;

Chapter 11: Innovative Joining by Forming Technologies;

Chapter 12: Multiscale & Continuum Constitutive Modelling;

Chapter 13: Incremental and Sheet Metal Forming;

Chapter 14: Sheet-Bulk-Metal Forming;

Chapter 15: Heat Transfer Modelling;

Chapter 16: Structures, Properties and Processing of Polymers;

Chapter 17: Non-Conventional Processes;

Chapter 18: Machining and Cutting;

Chapter 19: Integrated Design, Modelling and Reliability Assessment in Forming (I-DMR);

Chapter 20: Finite Element Technology and Multi-Scale Methods for Composites, Metallic Sheets and Coating Models;

Chapter 21: Intelligent Computation in Forming Processes.

Topics: Information Technologies, Materials Science, Nanoscience

Keywords: Aluminium Alloy, Aluminum (Al), Finite Element Analysis (FEA), Finite Element Method (FEM), Forging,

Forming, Friction Stir Welding (FSW), High Strength Steel (HSS), Incremental Sheet Forming (ISF), Microstructure, Modeling, Numerical Simulation, Optimization, Sheet Metal Forming, Simulation, Springback,

Steel, Tensile Test, Ti6Al4V, Titanium Alloy

Prices: Print: **US\$ 644.00**/ **EUR 644.00** Print: 978-3-03785-719-9

eBook Single-User: **US\$ 198.00 / EUR 198.00** eBook: 978-3-03826-100-1

eBook Multi-User: **US\$ 347.00/ EUR 347.00** 2600 pages,

2013

https://www.scientific.net/978-3-03785-719-9/book



Sheet Metal 2013

Selected, peer reviewed papers from the 15th International Conference on Sheet Metal, March 25-27, 2013, Belfast, Northern Ireland

Edited by: R.B. Clarke, A.G. Leacock, J.R. Duflou, M. Merklein and F. Micari

The collection provides an outlet for both industry and academia alike to present their latest findings in the area of sheet metal forming.

Volume is indexed by Thomson Reuters CPCI-S (WoS).

There are 69 peer reviewed contributions from Industry and academia representing 23 Countries. The research presented covers a diverse field from the fundamental testing and characterisation of sheet metals to the development of new and innovative forming processes.

Topics: Materials Science

Keywords: Accuracy, Aluminium Alloy, Austenitic Stainless Steel, Bending, Finite Element Method (FEM), Formability, Friction, High Strength Steel (HSS), Incremental Forming, Laser Welding, Microstructure, Robot, Roll Forming,

Friction, High Strength Steel (HSS), Incremental Forming, Laser Welding, Microstructure, Robot, Roll Forming, Sheet Metal, Sheet Metal Forming, Single Point Incremental Forming (SPIF), SPIF, Springback, Tailored Blank,

Ultra High-Strength Steel

Prices: Print: **US\$ 325.00/ EUR 325.00** Print: 978-3-03785-671-0

eBook Single-User: **US\$ 198.00 / EUR 198.00** eBook: 978-3-03826-052-3

eBook Multi-User: US\$ 347.00/ EUR 347.00 586 pages, 2013

https://www.scientific.net/978-3-03785-671-0/book



Material Forming ESAFORM 2012

Selected, peer reviewed papers from the 15th Conference of the European Scientific Association on Material Forming, (ESAFORM 2012), March 14-16, 2012, Erlangen, Germany

Edited by: Marion Merklein and Hinnerk Hagenah

This two-volume set of technical articles on materials science represents the proceedings of the Fifteenth Conference of the European Scientific Association for Material Forming held in Erlangen, Germany during March, 2012. Volume is indexed by Thomson Reuters CPCI-S (WoS).

The 227 peer-reviewed papers are grouped into the chapters: Keynotes; Formability of Metallic Materials; Forging and Rolling; Composite-Forming Processes; Semi-Solid Processes; Lightweight Design and Energy Efficiency in Metal Forming; New and Advanced Numerical Strategies for Material Forming; Extrusion and Drawing; Friction and Wear in Material Processing; Nano-Structured Materials and Microforming; Inverse Analysis Optimization and Stochastic Approaches; Constitutive Models for Metallic Alloys (Multiscale and Continuum); Innovative Joining by Forming Technologies; Incremental and Sheet-Metal Forming; Sheet-Bulk-Metal Forming; Heat Transfer Modelling; Structures, Properties and Processing of Polymers; Non-Conventional Processes; Machining and Cutting; Integrated Design, Modelling and Reliability Assessment in Forming (I-DMR).

Topics: Materials Science, Nanoscience

Keywords: Aluminum (Al), Anisotropy, Bending, Composite, Damage, Extrusion, Finite Element, Finite Element (FE)

Simulation, Finite Element Method (FEM), Formability, Friction, Friction Stir Welding (FSW), Incremental Forming, Modeling, Numerical Simulation, Sheet Metal, Sheet Metal Forming, Sheet-Bulk-Metal Forming,

Simulation, Yield Function

Prices: US\$ 561.00/ EUR 561.00 Print: 978-3-03785-366-5

eBook Single-User: US\$ 198.00/ EUR 198.00 eBook: 978-3-03813-690-3

1490 pages, eBook Multi-User: US\$ 347.00/ EUR 347.00 2012

https://www.scientific.net/978-3-03785-366-5/book



Sheet Metal 2011

Selected, peer reviewed papers from the 14th International Conference on Sheet Metal, Leuven, 18-20 April 2011

Edited by: Joost R. Duflou, Robin Clarke, Marion Merklein, Fabrizio Micari, Bez Shirvani and Karel Kellens

This work contains the proceedings of the 14th International Conference on Sheet Metal, held in Leuven, Belgium, from the 18th to the 20th April, 2011.

Volume is indexed by Thomson Reuters CPCI-S (WoS).

The objective of the International Conferences on Sheet Metal is to provide a forum where researchers, academics and industrialists can discuss and promote both the early dissemination of research results, and technology-transfer in sheet-metal processing. The conference provides an opportunity for those working on experimental research, as well as those involved in analytical and numerical modeling, to present their work. The contents therefore provide an unequalled overview of the field.

Topics: Materials Science

Keywords: Aluminium Alloy, Bending, Deep Drawing, Finite Element (FE) Simulation, Finite Element Analysis (FEA), Finite

> Element Model (FEM), Formability, Forming Limit, Hot Stamping, Hydroforming, Incremental Forming, Incremental Sheet Forming (ISF), Magnesium Alloy, Numerical Simulation, Sheet Metal, Sheet Metal Forming,

Sheet-Bulk-Metal Forming, Springback, Tube Hydro Forming, Ultra High-Strength Steel

Prices: US\$ 484.00 / EUR 484.00 Print: 978-3-03785-083-1

US\$ 198.00/EUR 198.00 eBook: 978-3-03813-496-1 eBook Single-User: 1080 pages, eBook Multi-User:

US\$ 347.00/ EUR 347.00 2011

https://www.scientific.net/978-3-03785-083-1/book



Sheet Metal 2009

Selected, peer reviewed papers from the 13th International Conference on Sheet Metal, held at the Birmingham City University, United Kingdom, 6th - 8th April 2009

Edited by: Bez Shirvani, Robin Clarke, Joost R. Duflou, Marion Merklein, Fabrizio Micari and Jonathan Griffiths

Volume is indexed by Thomson Reuters CPCI-S (WoS).

Collections of peer-reviewed papers are always excellent sources of knowledge and new ideas for researchers working in both universities and industry. The present collection, in particular, provides interdisciplinary and international resources; thus encouraging the close cooperation of materials scientists, and manufacturing and computer engineers and promoting the diffusion of research results, and technology transfer, in all areas of Sheet Metal Processing and Characterization.

Topics: Materials Science

Aluminum (Al), Bending, Cold Roll Forming, Deep Drawing, Finite Element Analysis (FEA), Finite Element Model Keywords:

(FEM), Formability, Forming, Friction Stir Welding (FSW), High Power Diode Laser, High Strength Steel (HSS), Hot Stamping, Incremental Forming, Laser Welding, Lubrication, Robot, Sheet Hydroforming, Sheet Metal, Sheet

Metal Forming, Titanium (Ti)

Prices: US\$ 407.00/ EUR 407.00 Print: 978-0-87849-336-4 Print.

US\$ 198.00/EUR 198.00 eBook: 978-3-03813-268-4 eBook Single-User:

US\$ 347.00/ EUR 347.00 eBook Multi-User: 700 pages, 2009

https://www.scientific.net/978-0-87849-336-4/book



Sheet Metal 2007

Proceedings of the 12th International Conference on Sheet Metal, Held at the University of Palermo, Italy, April 1st-4th 2007

Edited by: Fabrizio Micari, Manfred Geiger, Joost R. Duflou, Bez Shirvani, Robin Clarke, Rosanna Di Lorenzo and Livan Fratini Volume is indexed by Thomson Reuters CPCI-S (WoS).

Collections of peer-reviewed papers always make excellent sources of knowledge and new ideas for researchers coming from both universities and industry. The present collection in particular provides interdisciplinary and international resources, thus encouraging the close cooperation of material scientists, manufacturing and computer engineers and promoting the diffusion of research results, and technology transfer, in all areas of Sheet Metal Processing and Characterization.

Topics: Materials Science

Keywords: Deep Drawing, Finite Element (FE) Simulation, Finite Element Model (FEM), Incremental Forming, Sheet Metal,

Sheet Metal Forming, Springback

Prices: Print: **US\$ 484.00**/ **EUR 484.00** Print: 978-0-87849-437-8

eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-03813-128-1

eBook Multi-User: US\$ 347.00/ EUR 347.00 990 pages, 2007

https://www.scientific.net/978-0-87849-437-8/book



Sheet Metal 2005

Proceedings of the 11th International Conference on Sheet Metal 2005, held at the Friedrich-Alexander University Erlangen-Nürnberg, Germany, 08-08 April 2005

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Sheet metals have an unbroken history of fascination to research metallurgists, and are also of great importance to industry. Sheet metal, its properties, and methods for its efficient and targeted processing, are important issues; perhaps even more so today than in earlier times.

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