

Advanced Laser Applications Conference & Expo (ALAC 2015)

Proceedings Volume 26

Dearborn, Michigan, USA
4 – 5 November 2015

ISBN: 978-1-5108-1879-8

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2015) by Advanced Laser Applications Conference (ALAC)
All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact Advanced Laser Applications Conference (ALAC)
at the address below.

Advanced Laser Applications Conference (ALAC)
5340 Plymouth Road, Suite 205
Ann Arbor, MI 48105, USA

Phone: (734) 997-9249

Fax: (734) 786-2242

nasimu@gamcinc.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Sustainable, Surface Cleaning for Joining Preparation in Lightweight Production	1
<i>E. Buchter</i>	
Laser Application Enabling Trends in Enhanced Fuel Economy	7
<i>P. Cheng</i>	
Laser Blanking Addresses Today’s Challenges	16
<i>J. Finn</i>	
Decision Criteria for Laser Processing in BIW	29
<i>F. Geyer</i>	
Laser Surface Cleaning for Joining Preparation in Lightweight Production	33
<i>G. Heidelmann</i>	
Coil-fed Laser Blanking Technology	41
<i>M. Hunger</i>	
Tailor Solution – Material Mix for Light Weight Construction	45
<i>M. Padovani</i>	
Advanced Crash Management Structures by Use of Hot-Stamped Laser Welded Blanks	53
<i>F. Schmit, S. Gaied, D. Abou-Khalil, J. Gacel, M. Rotarescu</i>	
Innovative Joining Technologies for Metallic Multi-Material Design	60
<i>J. Standfuss, A. Jahn, S. Schulze, J. Bellmann, M. Wagner, E. Beyer</i>	
The Laser Seam Stepper: Flexible Tool for Sheet Metal Welding	72
<i>E. Stiles, M. Wiener</i>	
Light Weight Hot Stamped Side Structure for Narrow Offset Crash	77
<i>G. Tandon, S. Devaraj</i>	
International Year of Light 2015 - The Laser as an Enabling Technology	82
<i>K. Löffler</i>	
BlankLight™: Aluminium Laser Welded Blanks; Design, Simulation and Business Case	98
<i>J. Fisk</i>	
Author Index	