ASM HTS/Bodycote “Best Paper in Heat Treating” Contest

The ASM Heat Treating Society established the Best Paper in Heat Treating Award in 1997 to recognize a paper that represents advancement in heat-treating technology, promotes heat treating in a substantial way, or represents a clear advancement in managing the business of heat treating. The award, endowed by Bodycote Thermal Process-North America, is open to all students, in full-time or part-time education, at universities (or their equivalent) or colleges. The winner will receive a plaque and a check for $2,500.

Recipients of the ASM HTS/Bodycote “Best Paper in Heat Treating” Contest

2026

Sarah Tokos
For her paper entitled: “Induction Tempering Response of 8 mm Thick Martensitic Plate Steel”

2025

Mikayla Obrist, Bernard Gaskey, Melissa Thrun, Saryu Fensin, John Carpenter
For their paper entitled: “Computational Design of Interlayers for Thermally Stable Compositionally Graded Coatings on Nickel Alloys”

2024

Bernoulli Andilab
For his paper entitled: “In-situ analysis of incipient melting of Al2Cu in a novel high strength Al-Cu casting alloy using laser scanning confocal microscopy”

2023

Haoxing You
For his paper entitled: “Flux analysis of nitrogen and carbon during nitriding and FNC heat treating”

2022

Maryam Razavipour
For her paper entitled: “Data-Driven Design Framework for Laser Heat Treatment Process of Cold Spray Coating”

2021

Bryer Sousa
For his paper entitled: “Phase Fraction Quantification in Austempered Steels by Nanomechanical Mapping: AISI 5160 as a Case Study”

2020

Roberto Cruces-Reséndez
For his paper entitled: “The effect of probe-fluid interaction on the performance of standard probes for cooling curve analysis in agitated quenchants”

2019

Virginia K. Judge
For her paper entitled: “Rapid Tempering: Opportunities and Challenges”

2018

Blake M. Whitley
For his paper entitled: “Understanding Microstructural Evolution During Rapid Heat Treatment of Microalloyed Steels Through Computational Modeling, Advanced Physical Simulation and Multiscale Characterization Techniques”

2017

Gaosong Yi and Michael L. Free
For their paper entitled: “Effect of Pretreatment on the Sensitization Behavior of Al 5083 H116”

2016

Xiaoqing Cai and R. D. Sisson Jr
For their paper entitled: “Microstructure Development in AISI 4140 Steels During Tempering”

2015

Xiaoqing Cai and R. D. Sisson Jr
For their paper entitled: “Enhancement of Carbonitride Tool©-Retained Austenite and Microhardness Prediction”

2014

Anthony Lombardi, C. Ravindran, R. MacKay

For their paper entitled: “Development of Methodology to Improve Mechanical Properties of 319 Al alloy Engine Blocks Through Cost-Effective Heat Treatment Optimization”

2013

Jiandong Liang, Shengmin Guo, Muhammad A. Wahab
For their paper entitled: “Localized Surface Modification on 1018 Low Carbon Steel by Electrolytic Plasma Process and Its Impact on Corrosion Behavior”

2012

Mei Yang and R. D. Sisson Jr
For their paper entitled: “Modeling the Nitriding Process of Steels

2011

Y. Wei, G. Wang, R. D. Sisson Jr., B. Bernard, and R. Poor
For their paper entitled: “Intelligent Heat Treating: Simulation of Carburization Process”

2010

K. D. Clark, C. J. VanTyne, C. J. Vigil, and R. E. Hackenberg
For their paper entitled: “Induction Hardening 5150 Steel – Effects of Initial Microstructure and Heating Rate”

2008

Vivekanand Sista, Philip Nash, and Satyam S. Sahay
For their paper entitled: “Accelerated Bainitic Transformation During Cyclic Austempering”

2007

Olga Karabelchtchikova, Christopher A. Brown, R. D. Sisson, Jr
For their paper entitled: “The Effect of Surface Roughness on the Kinetics of Mass Transfer During Gas Carburizing”

2006

Shuhui Ma
For her paper entitled:“Modeling the Heat Treatment of Age-Hardening Cast Aluminum Alloys”

2005

Olga Karabelchtchikova, Christopher A. Brown, R. D. Sisson, Jr
For their paper entitled: “The Effect of Surface Roughness on the Kinetics of Mass Transfer During Gas Carburizing”

2004

Peter King

For his paper entitled: “Ferritic Netrocarburising of Tool Steels”

2003

Jason Blush
For his paper entitled: “Modeling of Concentration, Flow Stress, and Residual Stress Due to Surface Hardening with Interstitial Solutes”

2002

Manoj M. Thete
For his paper entitled: “Simulation of Gas Carburizing: Development of a Computer Program with Systematic Analysis of Process Variables Involved”

2001

P.F. Stratton and Dustin Ho
For their paper entitled: “Modelling the Gas Quenching of a Gear Wheel”

2000

Michio Sugiyama, Kunihiko Ishikawa, Hitoshi Iwata
For their paper entitled: “Vacuum Carburizing with Acetylene”

1999

Youichi Watanabe, Naoki Narita, Shunzo Umegaki, Yoshinao Mishima
For their paper entitled: “Rolling Contact Fatigue Strength of Carbo-Nitrided and Shot Peened Chromium Alloy Steel”

1998

J.L. Cunningham, D.J. Medlin, George Krauss
For their paper entitled: "Effects of Induction Hardening and Prior Cold Work on a Microalloyed Medium Carbon Steel”.