

**FOLLOWING ARE THE ABSTRACT TITLES, AUTHORS AND COMPANIES, CURRENTLY
UNDER CONSIDERATION* FOR FINAL PRESENTATION FOR THE DESIGNATED
SESSIONS OF INTERTECH 2011**

**ADDITIONAL ACCEPTED OR DROPPED PAPERS MAY ALTER THE FOLLOWING SCHEDULE*

MONDAY, MAY 2 - STONE & CONCRETE

INTERTECH Ref# 1119

IMPROVING THE LASER WELDING OF DRILL BITS

Gerhard Weber - *Dr. Fritsch, Germany*

INTERTECH Ref# 1147

DIAMOND WIRE CUTTING SLOTS IN DAMS TO RELIEVE CONCRETE STRESS DUE TO ALKALI-AGGREGATE REACTIVITY (AAR) IN CONCRETE.

Joe Shebesta, Tim Beckman - *Cutting Edge Services Corp, USA*

INTERTECH Ref# 1154

USE OF RECYCLED DIAMOND IN THE MANUFACTURE OF SAWS FOR CUTTING STONE

Ana Lúcia Diegues Skury, Professor - *State University of Northern Fluminense (UENF), Brazil*

INTERTECH Ref# 1157

DISCRETE SIMULATION FOR ANALYSIS OF DIAMOND SAWS FOR STONE PROCESSING

Ana Carolina Almeida Sá - *Universidade Candido Mendes Campos, Brazil*

INTERTECH Ref# 1165

THE DESIGN AND PERFORMANCE OF TRIZACT(TM) DIAMOND HX ABRASIVES FOR GRINDING AND POLISHING SINGLE-PHASE AND COMPOSITE CERAMIC SUBSTRATES IS DESCRIBED.

James McArdle, Lead Product Development Specialist - *3M Abrasive Systems Division, USA*

MONDAY, MAY 2 - MINING & DRILLING

INTERTECH Ref# 1112

EVALUATION OF MICROSTRUCTURE, WEAR CHARACTERISTICS AND CUTTING PERFORMANCE OF DIAMOND COMPOSITE TOOLS

Xing Sheng Li, Research Leader, **James N. Boland, PhD** – *CSIRO, Australia*

INTERTECH Ref# 1133

STUDY OF THE INFLUENCE OF COBALT CONTENT ON POLYCRYSTALLINE DIAMOND (PCD) MECHANICAL PROPERTIES

Dan Belnap, PhD, Yi Fang and Haibo Zhang - *Megadiamond A Schlumberger company, USA*

INTERTECH Ref# 1143

DIAMOND IMPREGNATED BIT ENHANCED WITH CVD DIAMOND PINS AND IT'S DRILLING PERFORMANCE

Dr. Baochang Liu, Associate Professor - *College of Construction Engineering, Jilin University, China*

INTERTECH Ref# 1163

SCD - A RANGE OF 3D POLYCRYSTALLINE DIAMOND COMPOSITES

LF van Staden, Composite Diamond Manufacturing Plant - *Element Six, South Africa*, **Gerry Flynn**, Business, Development Manager, Ultrahard Material Solutions - *Element Six, UK*, **Wayne Leahy**, Regional Technical Manager - *Element Six, Japan*

INTERTECH Ref# 1168

NEW CUTTER TECHNOLOGY IMPROVES PERFORMANCE 30-70% IN EXISTING PDC DRILL BIT DESIGNS

Dan Scott, Anthony DiGiovanni, Nicholas Lyons, Derek Nelms - *Baker Hughes, USA*

MONDAY, MAY 2 - RESEARCH & DEVELOPMENT

INTERTECH Ref# 1117

IMPROVEMENTS TO THE REQUIREMENTS OF THE FRIABILITY TEST METHODS ARE SUGGESTED, NARROWING THE DEVIATION ON THE RESULTS

Philippe van Bogaert, CEO - *Bogimac nv-sa, Belgium*

INTERTECH Ref# 1129

THE GLASS ROLLER CUTTER MADE OF CVD DIAMOND FILM

Hsiao-Kuo Chang - National Cheng-Kung University, Taiwan, **James C. Sung** - KINIK Company, Taiwan, **Ying-Kuo** - National Taiwan University, Taiwan

INTERTECH Ref# 1139

PROPERTIES AND PERFORMANCE OF HPHT PROCESSED DIAMOND-SIC COMPOSITES

Thomas Easley, Senior Development Engineer - *Diamond Innovations, USA*

INTERTECH Ref# 1145

CUTTING PERFORMANCE OF BINDERLESS PCD FOR HIGH-PRECISION MICROMACHINING

Takeru Nakashima, Chief Engineer - *Sumitomo Electric Hardmetal Corp., Japan*

INTERTECH Ref# 1146

X-RAY TOMOGRAPHY OF DIAMOND SYNTHESIS CORES

Heiner Vollstädt, Professor, **Einar List** - *Vollstädt-Diamant GmbH, Germany*, **Felix Porsch** - *Fraunhofer, Germany*

INTERTECH Ref# 1152

SURFACE TEXTURED DIAMOND PARTICLES – PROPERTIES AND APPLICATIONS

Dr. Ion Benea, Vice President Operation - *Hyprez Products*, **Benjamin R. Rosczyk**, **Laura M. Fitzgerald** - *Engis Corporation, USA*

INTERTECH Ref# 1156

COMMERCIAL APPLICATIONS OF ELECTRICALLY CONDUCTIVE DIAMOND

Jerry Zimmer, CTO - *sp³ Diamond Technologies, USA*

INTERTECH Ref# 1164

STATE OF THE ART CVD SYNTHETIC DIAMOND: A DRIVING FORCE FOR INNOVATIVE CHARACTERIZATION METHODS IN GEM LABS

Bert Willems, PhD - *HRD Antwerp, Belgium*, **Alexandre Tallaire**, **Jocelyn Achard** - *LSPM-CNRS, Université Paris, France*

TUESDAY, MAY 3 - EDUCATIONAL SESSION
“Superabrasive Materials, Principles & Applications”
SESSION & LECTURE SCHEDULE

INTRODUCTION: Abrasives - History, Types and Properties

LECTURERS – **CHRIS WINKEL**, WORLDWIDE SUPERABRASIVES
KEITH RECKLING, NATIONAL RESEARCHCOMPANY

SUPERABRASIVE GRINDING: Diamond vs CBN - Materials Ground, Economics, Applications & Parameters

LECTURERS – **DAVE EDWARDS**, ACTION SUPERABRASIVE PRODUCTS, INC.
RADU COMAN, WINTERTHUR-WENDT USA

SUPERABRASIVE MACHINING: Polycrystalline Diamond & PcBN Products for machining, turning, milling and drilling - Materials Machined, Application Parameters

LECTURERS – **MIKE MUSTIN**, AMERICAN SUPERABRASIVES CORP.
SCOTT RIES, VOLLMER OF AMERICA CORP.

SUPERABRASIVE WEAR MATERIALS: Wire Dies & Wear parts, Polycrystalline and Single crystal Materials and applications

LECTURER – **DAVE SIMPSON**, SUMITOMO ELECTRIC CARBIDE, INC. – MATERIALS GROUP

SAW DIAMOND FOR SAWING, DRILLING AND SHAPING: DIAMOND TYPES AND PROPERTIES:

Materials and Applications, Fracture/ Performance Characteristics, Blades, Core Drills, Wire Saws and Bond Systems

LECTURERS – **STEPHEN KELLY**, ELEMENT 6
RICK NORLAND, CONSTRUCTION SOLUTIONS

WRAP-UP (RESOURCE MATERIALS, Q&A FORUM: ALL LECTURERS

TUESDAY, MAY 3 - ULTRAHARD & SUPERABRASIVE MATERIALS

INTERTECH Ref# 1114

MICROSTRUCTURE CONTROL AND MECHANICAL PROPERTIES OF CUBIC BORON NITRIDE NANOCOMPOSITE
Hee-Sub Park - *ILJIN diamond Co. Ltd., Korea*

INTERTECH Ref# 1126

CHINA'S DIAMOND IN THE WORLD MARKET
Li Zhihong, General Secretary - *IDA China, China*

INTERTECH Ref# 1135

CONVERTING FROM CONVENTIONAL TO SUPERABRASIVES
Matt Huff, Product Specialist - *Cinetic Landis Corp. USA*

INTERTECH Ref# 1140

SYSTEM COST REDUCTION IN TUNGSTEN CARBIDE INSERT GRINDING
Sridhar Kompella, Mesh Applications Technology Manager, **Kris Kumar** - *Diamond Innovations, USA*

INTERTECH Ref# 1144

NATURAL DIAMONDS TRENDS IN MINING AND MARKETS POSE INTERESTING CHALLENGES TO DEALERS,
DIAMOND TOOL MANUFACTURERS AND ENDUSERS
Steve Roffman, Vice President - *Lieber and Solow Ltd., USA*

INTERTECH Ref# 1149

EFFECT OF COMPLEX GRINDING ASSISTED WITH EDM FOR ELECTRICALLY CONDUCTIVE PCD
Dr. Manabu Iwai, Associate professor, **Shinichi Ninomiya**, **Kiyoshi Suzuki** - *Toyama Prefectural University, Japan*

INTERTECH Ref# 1151

MICRO-MACHINING AND CUTTING OF HARD MATERIALS USING WATER JET-GUIDED LASER TECHNOLOGY
Alex Schreiner, Business Development Manager, **B. Carron**, **M. Pavius** - *Synova USA*

TUESDAY, MAY 3 - AEROSPACE SESSION

INTERTECH Ref# 1111

INFLUENCE OF GRINDING WHEEL HUB MATERIAL ON THE HIGH EFFICIENCY DEEP GRINDING (HEDG)
PROCESS
Taghi Tawakoli, Professor - *A. Vesali, Institute of Grinding and Precision Technology (KSF), Germany*

INTERTECH Ref# 1122

NEW DEVELOPMENTS IN HIGH EFFICIENCY DEEP GRINDING
Andre Batako, PhD - *Liverpool John Moores University, UK*

INTERTECH Ref# 1125

OPTIMIZATION OF CREEP FEED GRINDING OF NICKEL-BASED ALLOYS FOR QUALITY PRODUCTION
Radu Pavel, Machining/Grinding Research Engineer, **Xiqun Wang**, **Anil Srivastava** - *TechSolve Inc., USA*

INTERTECH Ref# 1137

IMPROVED MACHINING OF NON-FERROUS METALS UTILIZING A NEW FINE GRAINED PCD
William Russell, Senior Development Engineer - *Diamond Innovations, USA*

INTERTECH Ref# 1141

SUPERALLOY GRINDING PRODUCTIVITY IMPROVEMENT WITH NEW CBN CRYSTALS
Sridhar Kompella, Mesh Applications Technology Manager - *Diamond Innovations, USA*

INTERTECH Ref# 1142

SUPERALLOY GRINDING WITH ELECTROPLATED CBN WHEELS AND INFLUENCE OF MANUFACTURING
QUALITY ON PERFORMANCE
Sridhar Kompella, Mesh Application Technology Manager - *Diamond Innovations, USA*

INTERTECH Ref# 1159

MACHINING TITANIUM ALLOYS WITH PCD

Stephen Kelly, Regional Technical Manager - *Element Six, USA*, **Neels Pretorius**, **Tom Toomey** - *Element Six, Ireland*,
Wayne Leahy - *Element Six, Japan*

INTERTECH Ref# 1166

REQUIREMENTS FOR CUTTING TOOL MATERIALS FOR THE AIRFRAME INDUSTRY

Jeff Lantrip, Assembly Technologies - Drilling Process Development - *The Boeing Company, USA*

WEDNESDAY, MAY 4 - AUTOMOTIVE SESSION

INTERTECH Ref# 1110

SELECTION OF GRITS IN ABRASIVE TOOLS – ONE WAY TO SUSTAINABILITY

Barbara S. Linke, Dr.-Ing., F. Klocke - *WZL of RWTH Aachen University, Germany*

INTERTECH Ref# 1115

MACHINING PERFORMANCE AND MECHANICAL PROPERTIES OF SOLID TYPE PCBN (POLYCRYSTALLINE CUBIC BORON NITRIDE)

Woo Sung Kim, *ILJIN DIAMOND, Korea*

INTERTECH Ref# 1121

THE EFFECTS OF PCBN TOOL WEAR ON CUTTING FORCES AND SURFACE INTEGRITY IN FINISH HARD TURNING

Rahul Chaudhari, Manager, Machining and Finishing - *The Timken Company, USA*

INTERTECH Ref# 1131

CHARACTERIZATION OF VITRIFIED CBN GRINDING WHEELS FROM A THERMAL PERSPECTIVE IN CAM GRINDING

Don Cutchall, Senior Applications Engineer - *Winterthur Wendt USA, USA*

INTERTECH Ref# 1132

FINEGRINDING DEVELOPED AS A PROVEN PROCESS COMPARABLE WITH LAPPING TO FINISH HIGH PRECISION WORKPIECES

Matthias Martin, Product Manager - *Wendt GmbH Winterthur Technology Group, Germany*

INTERTECH Ref# 1138

A COMPUTER MODEL FOR WORN CUTTING EDGE IN HARD TURNING

Raja Kountanya, Senior Development Engineer - *Diamond Innovations, USA*

INTERTECH Ref# 1155

EVALUATION OF PERFORMANCE OF NANOSTRUCTURED CBN INSERTS IN MACHINING STEEL

Ana Lucia Diegues Skury, Professor - *State University of Northern Fluminense (UENF), Brazil*

INTERTECH Ref# 1161

NEW HIGH STRENGTH CBN ABRASIVE FOR SINGLE LAYER TOOLS

Cormac Lee, Applications Engineer, **Mark O'Sullivan** - *Element Six, Ireland*, **Karolina Hannersjö** - *Element Six, Sweden*

INTERTECH Ref# 1167

DEVELOPMENT OF NEW PCBN GRADE FOR FERROUS POWDER METAL FINISHING

Toshiyuki (Tony) Sahashi, President - *Sumitomo Electric Carbide Inc., USA*

WEDNESDAY, MAY 4 - ELECTRONICS & OPTICS

INTERTECH Ref# 1124

DEVELOPMENT OF PRECISION FIXED-DIAMOND WIRE PWS

Nobuhide Nakamura - *A.L.M.T. Corp., Japan*

INTERTECH Ref# 1127

THE CMP BY POLISHING WITH GIP DRESSED BY BODD

James C. Sung, President, **Cheng-Shiang Chou** - *KINIK Company, Taiwan*, **Ming-Yi Tsai** - *National Chin-Yi University of Technology, Taiwan*, **Pei-Lum Tso** - *National Tsing Hua University, Taiwan*, **Ying-Tung Chen** - *National Defense University, Taiwan*

INTERTECH Ref# 1128

DIAMOND ISLANDS WAFER FOR SUPER LED MANUFACTURE

James C. Sung, President, **Ming-Chi Kan**, **Chung Hu** - *KINIK Company, Taiwan*, **Joe C. Yuan** - *Taidiam Technology, China*, **Michael Sung** - *Advanced Diamond Solutions, USA*

INTERTECH Ref# 1130

APPLICATION AND MANUFACTURING OF ELECTROPLATED TOOLS WITH SUPER-ABRASIVES FOR THE SEMICONDUCTOR AND SOLAR INDUSTRY

Alfred Trenker, President - *TRENKER ABRASIVE PLANT TECHNOLOGY, GERMANY*

INTERTECH Ref# 1134

NANOTECHNOLOGY FOR MANUFACTURING ULTRATHERMOCONDUCTIVE COMPOSITE MATERIALS

Smirnov Evgeny, Head of Laboratory – *Nanoengineering, Russia*

INTERTECH Ref# 1136

LARGE GRAPHITE FILMS EVOLVED FROM MOLTEN METAL CATALYST

Kuen-Liang Chang, **Kai-Hung Hsu** - *National Taipei University of Technology, Taiwan*, **Michael Sung** - *Advanced Diamond Solutions, USA*, **James C. Sung**, **Shao-Chung Hu**, **I-Chiao Lin**, **Chien-Pei Yu** - *KINIK Company, Taiwan*

INTERTECH Ref# 1153

THE EFFECT OF CVD DIAMOND COATED CMP CONDITIONER D

David Slutz - *Morgan Technical Ceramics, USA*

INTERTECH Ref# 1162

LARGE SINGLE CRYSTAL HPHT IIA DIAMOND FOR HIGH QUALITY X-RAY OPTICAL PLATES AT 3RD AND 4TH GENERATION LIGHT SOURCES

Paul Balog, PhD, **Carlton Dodge, PhD**, **Raymond Spits, PhD** - *Element Six, British Isles*, **Ian Friel, PhD** - *Element Six, UK*, **Dr. rer. nat. habil. Jürgen Härtwig** - *European Synchrotron Radiation Facility, France*

WEDNESDAY, MAY 4 - TOOL PROCESSING & PROPERTIES

INTERTECH Ref# 1113

NOVEL FE-NI-CU-SN MATRIX MATERIALS FOR THE MANUFACTURE OF DIAMOND-IMPREGNATED TOOLS

Janusz Konstanty, PhD, **Thomas F. Stephenson**, **Dorota Tyrala** - *AGH-University of Science & Technology, Poland*

INTERTECH Ref# 1118

ARE HPHT DIAMONDS GOOD TOOL MATERIAL FOR PRECISION CUTTING?

John Wang, Associate Professor - *University of Nevada, USA*

INTERTECH Ref# 1120

INCREASED PRODUCTIVITY IN THE CENTERLESS GRINDING OF PCD BUTTONS THROUGH A COMBINATION OF ADVANCED MACHINE TOOLS AND INNOVATIVE WHEEL TECHNOLOGIES

Mike Hitchiner, OEM Technology Manager, **Ken Saucier**, *Saint-Gobain Abrasives*, **William Pflager** - *Landis Cinetic, USA*

INTERTECH Ref# 1123

TECHNOLOGY AND EQUIPMENT FOR THE MANUFACTURE OF DIAMOND GRINDING WHEELS OF THERMAL SPRAY COATING

Boris A. Eizner, Director **Ing. A. Shvartsman** - *A. Termika Ltd., Israel*

INTERTECH Ref# 1148

MATERIAL PROPERTY OF NEWLY DEVELOPED PCD MADE UP OF ELECTRICALLY CONDUCTIVE DIAMOND PARTICLES

Dr. Manabu Iwai, Associate Professor, **Shinichi Ninomiya**, **Kiyoshi Suzuki** - *Toyama Prefectural University, Japan*

INTERTECH Ref# 1158

THE USE OF ENCAPSULATION FOR DIAMOND TOOL MANUFACTURE

David Egan, Senior Metallurgist, **Cormac Lee**, **Mark O'Sullivan** - *Element Six, Ireland*

INTERTECH Ref# 1160

A NEW PARADIGM IN THE MACHINING OF WOOD AND COMPOSITE MATERIALS

Peter Harden, Manager of Market Support Centre, **Dermot O'Malley**, **Tom Toomey**, **David Downey** - *Element Six, Ireland*