<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30-4:00</td>
<td>Registration Desk Open</td>
<td>Rosemont Ballroom</td>
<td>David Spelbrink, Lieber &amp; Solow Company</td>
</tr>
<tr>
<td>7:00-8:00</td>
<td>Continental Breakfast</td>
<td>Rosemont Ballroom</td>
<td>Keith Reckling, National Research Corporation</td>
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<tr>
<td>8:00-8:15</td>
<td>Rosemont Ballroom &quot;B&quot;, Welcome &amp; Introduction, Dave Edwards &amp; Terry Kane - IDA of America</td>
<td>Rosemont Ballroom</td>
<td>Dave Edwards &amp; Terry Kane, IDA of America</td>
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<tr>
<td>8:15-9:00</td>
<td>Keynote - Dr. Dean Ho, Associate Professor, Biomedical and Mechanical Engineering, Northwestern University</td>
<td>Rosemont Ballroom</td>
<td>Dr. Dean Ho, Northwestern University</td>
</tr>
<tr>
<td>9:00-9:15</td>
<td>Research &amp; Development Overview</td>
<td>Rosemont Ballroom A</td>
<td>Chairperson, David Spelbrink, Lieber &amp; Solow Company</td>
</tr>
<tr>
<td>9:15-10:00</td>
<td># 1139 Properties and Performance of HPHT Processed Diamond-Sic Composites</td>
<td>Rosemont Ballroom A</td>
<td>Thomas Easley, Senior Development Engineer, Diamond Innovations, USA</td>
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<tr>
<td>10:00-10:15</td>
<td>Break</td>
<td>Rosemont Ballroom A</td>
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</tr>
<tr>
<td>10:15-11:00</td>
<td># 1145 Cutting Performance of Binderless PCD for High-Precision Micromachining</td>
<td>Rosemont Ballroom A</td>
<td>Takeru Nakashima, Chief Engineer, Sumitomo Electric Hardmetal Corp., Japan</td>
</tr>
<tr>
<td>11:00-11:45</td>
<td># 1146 X-Ray Tomography of Diamond Synthesis Cores</td>
<td>Rosemont Ballroom A</td>
<td>Felix Vollstadt, Professor, Einar List, Vollstadt-Diamant GmbH, Germany, Porsche, Fraunhofer, Germany</td>
</tr>
<tr>
<td>12:00-1:00</td>
<td>Lunch</td>
<td>Rosemont Ballroom A</td>
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<tr>
<td>1:00-1:45</td>
<td>Rosemont Ballroom &quot;C&amp;D&quot; - Keynote - Mark Schweizer, President of Diamond Innovations, Inc.</td>
<td>Rosemont Ballroom C&amp;D</td>
<td>Mark Schweizer, President of Diamond Innovations, Inc. Worthington, Ohio USA</td>
</tr>
<tr>
<td>1:45-2:30</td>
<td># 1152 Surface Textured Diamond Particles - Properties and Applications</td>
<td>Rosemont Ballroom C&amp;D</td>
<td>Benjamin Benea, Vice President Operation, Hypez Products, R. Rosczyk, Laura M. Fitzgerald, Engis Corporation, USA</td>
</tr>
<tr>
<td>2:30-2:45</td>
<td>Break</td>
<td>Rosemont Ballroom C&amp;D</td>
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<tr>
<td>2:45-3:30</td>
<td># 1156 Commercial Applications of Electrically Conductive Diamond</td>
<td>Rosemont Ballroom C&amp;D</td>
<td>Dwain Aidala, President &amp; COO, sp3 Diamond Technologies, USA</td>
</tr>
<tr>
<td>3:30-4:15</td>
<td># 1164 State of the Art CVD Synthetic Diamond: A Driving Force for Innovative Characterization Methods in Gem Labs</td>
<td>Rosemont Ballroom C&amp;D</td>
<td>Bert Williams, PhD, HRD Antwerp, Belgium, Alexandre Tallaire, Jocelyn Achard, LSPM-CNRS, Universite Paris, France</td>
</tr>
<tr>
<td>4:15-5:00</td>
<td># 1117 Improvements to the Requirements of the Friability Test Methods Are Suggested, Narrowing the Deviation on the Results</td>
<td>Rosemont Ballroom C&amp;D</td>
<td>Philippe Van Bogaert, Sarah Van Bogaert Engineering Support, Bogimac NV-SA Belgium</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td>Rosemont Ballroom &quot;B&quot;, Welcome &amp; Introduction, Dave Edwards &amp; Terry Kane - IDA of America</td>
<td>Rosemont Ballroom B</td>
<td>Dave Edwards &amp; Terry Kane, IDA of America</td>
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<tr>
<td>6:00 PM - 8:00 PM</td>
<td>Welcome Reception - Hors d’oeuvres &amp; Cocktails</td>
<td>Rosemont Ballroom B</td>
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</tbody>
</table>

**MONDAY MAY 2, 2011**

**RESEARCH & DEVELOPMENT**

- **7:30 - 4:00** Registration Desk Open
- **7:00 - 8:00** Continental Breakfast
- **8:00 - 8:15** Rosemont Ballroom "B", Welcome & Introduction, Dave Edwards & Terry Kane - IDA of America
- **8:15 - 9:00** Keynote - Dr. Dean Ho, Associate Professor, Biomedical and Mechanical Engineering, Northwestern University

**STONE & CONCRETE, MINING & DRILLING**

- **9:00 - 9:15** Stone/Concrete Overview
- **9:15 - 10:00** # 1119 Improving the Laser Welding of Drill Bits
- **10:00 - 10:15** Break
- **10:15 - 11:00** # 1147 Diamond Wire Cutting Slots in Dams to Relieve Concrete Stress Due to Alkali-Aggregate Reactivity (AAR) in Concrete
- **11:00 - 11:45** # 1165 The Design and Performance of Trizact (Tm) Diamond Hx Abrasives for Grinding and Polishing Single-Phase and Composite Ceramic Substances Is Described

**REGISTRATION DESK OPEN**

- **7:00 - 8:00** Continental Breakfast
- **8:00 - 8:15** Rosemont Ballroom "B", Welcome & Introduction, Dave Edwards & Terry Kane - IDA of America
- **8:15 - 9:00** Keynote - Dr. Dean Ho, Associate Professor, Biomedical and Mechanical Engineering, Northwestern University

**RESEARCH & DEVELOPMENT OVERVIEW**

- **9:00 - 9:15** Chairperson, David Spelbrink, Lieber & Solow Company
- **9:15 - 10:00** # 1139 Properties and Performance of HPHT Processed Diamond-Sic Composites
- **10:00 - 10:15** Break
- **10:15 - 11:00** # 1145 Cutting Performance of Binderless PCD for High-Precision Micromachining
- **11:00 - 11:45** # 1146 X-Ray Tomography of Diamond Synthesis Cores

**ROOSENFIELD BALLROOM "A"**

- **1:45 - 2:30** # 1152 Surface Textured Diamond Particles - Properties and Applications - Dr. Ion Benea, Vice President Operation - Hypez Products, R. Rosczyk, Laura M. Fitzgerald, Engis Corporation, USA
- **2:30 - 2:45** Break
- **2:45 - 3:30** # 1156 Commercial Applications of Electrically Conductive Diamond
- **3:30 - 4:15** # 1164 State of the Art CVD Synthetic Diamond: A Driving Force for Innovative Characterization Methods in Gem Labs
- **4:15 - 5:00** # 1117 Improvements to the Requirements of the Friability Test Methods Are Suggested, Narrowing the Deviation on the Results

**MINING/DRILLING OVERVIEW**

- **1:45 - 2:00** Chairperson - Keith Reckling, National Research Corporation
- **2:00 - 2:45** # 1133 Study of the Influence of Cobalt Content on Polycrystalline Diamond (PCD) Mechanical Properties
- **2:45 - 3:45** Break
- **3:30 - 3:45** # 1143 Diamond Impregnated Bit Enhanced With CVD Diamond Pins and It’s Drilling Performance
- **3:45 - 4:30** # 1168 New Cutter Technology Improves Performance 30-70% In Existing PDC Drill Bit Designs
**TUESDAY MAY 3, 2011**

**AEROSPACE**

- 7:30 - 4:00 | **REGISTRATION DESK OPEN**
- 7:00 - 8:00 | **CONTINENTAL BREAKFAST**
- 8:00 - 8:15 | **ROSEMONT BALLROOM “C&D”, WELCOME & INTRODUCTION, Dave Edwards & Terry Kane** - IDA of America
- 8:15 - 9:00 | **KEYNOTE - WALTER HÜHN**, Executive Director, Advanced Materials & Technologies Division, Element Six, Frankfurt, Germany

**ROSEMONT BALLROOM “A”**

| 9:00-9:15 | AEROSPACE OVERVIEW - Chairperson - Troy Heuermann  
3M Abrasive Systems Division |
|----------|--------------------------------------------------|
| 9:15-10:00 | #1111 Influence Of Grinding Wheel Hub Material On The  
Alireza Vesali, Taghi Tawakroli, Professor - Institute Of  
Grinding And Precision Technology (KSF), Germany |
| 10:00-10:15 | **BREAK** |
| 10:15-11:00 | #1125 Optimization Of Creep Feed Grinding Of  
Nickel-Based Alloys For Quality Production -  
Radu Pavel, Machining/ Grinding Research Engineer,  
Xqun Wang, Anil Srivastava - Techsolve Inc., USA |
| 11:00-11:45 | #1137 Improved Machining Of Non-Ferrous Metals  
Utilizing A New Fine Grained PCD - William Russell,  
Senior Development Engineer - Diamond Innovations, USA |
| 12:00-1:00 | **LUNCH** |
| 1:00-1:45 | #1166 Requirements For Cutting Tool Materials For  
The Airframe Industry - Jeff Lantrip, Assembly Technologies- 
Drilling Process Development - The Boeing Company, USA |
| 1:45-2:30 | #1142 Superalloy Grinding With Electroplated CBN  
Wheels And Influence Of Manufacturing Quality  
On Performance - Uppili Sridharan, Grinding Application  
Development Engineer, Sridhar Kompella, Mesh Application  
Technology Manager - Diamond Innovations, USA |

**ROSEMONT BALLROOM “B”**

| 9:00-9:15 | EDUCATION OVERVIEW - Chairperson, Dave Edwards  
Action Superabrasive Products, Inc. |
|----------|--------------------------------------------------|
| 9:15-10:00 | INTRODUCTION: Abrasives - History, Types And  
Properties Lecturers - Chris Winkel, Worldwide Super- 
abrasives. Keith Reckling, National Research  
Company |
| 10:00-10:15 | **BREAK** |
| 10:15-11:00 | Superabrasive Grinding: Diamond Vs CBN-  
Materials Ground, Economics, Applications &  
Parameters Lecturers - Dave Edwards, Action  
Superabrasive Products, Inc. Radu Coman  
Winterthur-Wendt USA |
| 11:00-11:45 | Superabrasive Machining: Polycrystalline Diamond  
& PCBN Products For Machining, Turning, Milling  
And Drilling - Materials Machined, Application  
Parameters Lecturers -  
Mike Mustin, American Superabrasives Corp.  
Boe McCarthy, President of MTS Tool, Oakville  
Connecticut USA  
Scott Ries, Vollmer Of America Corp. |
| 12:00-13:00 | **LUNCH** |
| 12:00-13:00 | **LUNCH** |
| 1:00-1:45 | Superabrasive Wear Materials: Wire Dies & Wear  
Parts, Polycrystalline And Single Crystal Materials  
And Applications Lecturer - Scott Ries, Vollmer  
Of America Corp. |
| 1:45-2:30 | 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 |
| 2:30-2:45 | **BREAK** |
| 2:45-3:30 | Wrap-Up - Resource Materials, Q&A Forum  
All Lecturers |

**ROSEMONT BALLROOM “C&D”**

| 9:00-9:15 | ULTRAHARD & SUPERABRASIVE MATERIALS OVERVIEW  
Chairperson - Joe Connolly, Element 6 |
|----------|--------------------------------------------------|
| 9:15-10:00 | #1114 Microstructure Control And Mechanical Properties  
Of Cubic Boron Nitride Nanocomposite  
Hee-Sub Park - ILJIN Diamond Co. Ltd., Korea |
| 10:00-10:15 | **BREAK** |
| 10:15-11:00 | #1135 Converting From Conventional To Superabrasives  
Matt Huff, Product Specialist - Cinetic Landis Corp., USA |
| 11:00-11:45 | #1144 Natural Diamond Trends In Mining And Markets  
Pose Interesting Challenges To Dealers, Diamond Tool  
Manufacturers And Endusers  
Steve Ruffman, Vice President - Lieber And Solow Ltd., USA |
| 12:00-1:00 | **LUNCH** |
| 1:00-1:45 | #1149 Effect Of Complex Grinding Assisted With EDM For  
Electrically Conductive PCD  
Dr. Manabu Iwai, Associate Professor, Shinichi Ninomiya,  
Kyoshi Suzuki - Toyama Prefectural University, Japan |
| 1:45-2:30 | #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 |

**5:30 PM - 10:30 PM OPTIONAL CHICAGO “DINE AROUND” TOUR - A PROGRESSIVE DINING EXPERIENCE & TOUR OF CHICAGO!**
TOOL PROCESSING & PROPERTIES

9:00-9:15 TOOL PROCESSING & PROPERTIES OVERVIEW - Chairperson - Chris Winkel, Worldwide Superabrasives
10:15-11:00 #1118 Increased Productivity In The Centerless Grinding Of PCD Buttons Through A Combination Of Advanced Machine Tools And Innovative Wheel Technologies - Ken Saucier, Saint-Gobain Abrasives, Mike Hitchiner, OEM Technology Manager, William Pfloger - Landis Cinetic, USA
11:00-11:45 #1134 Nanotechnology For Manufacturing Ultrathermoconductive Composite Materials Smirnov Evgeny, Head Of Laboratory - Nanoengineering, Russia
12:00-1:00 –LUNCH–
1:00-1:45 #1153 The Effect Of CVD Diamond Coated CMP Conditioner D - David Slutz - Morgan Technical Ceramics, USA
1:45-2:30 #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, UK, Dr. Rer. Nat. Habl Jurgen Hartweig - European Synchrotron Radiation Facility, France
2:30-2:45 –BREAK–
2:45-3:30 #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
3:30-4:15 #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
4:15-5:00 #1182 Diamond/CBN Abrasive Wheels with Adaptive Abrasive Composite Technology for Ultra-High Capacity and Precision Finishing Machining of Hard-to-Machine Materials - Nikolay Ignatov, PhD, Chairman and CEO at Aignesco Abrasive Systems Co., Canada

ELECTRONICS & OPTICS

9:00-9:15 ELECTRONICS & OPTICS OVERVIEW - Chairperson, Jay Lunzer, Lunzer, Inc.
10:15-11:00 #1124 Development Of Precision Fixed-Diamond Wire PWS - Nobuhide Nakamura - A.L.M.T. Corp. Japan
11:00-11:45 #1138 A Computer Model For Worn Cutting Edge In Hard Turning - Raja Kountanya, Senior Development Engineer - Diamond Innovations, USA
12:00-1:00 –BREAK–
1:00-1:45 #1151 Characterization Of Vitrified CBN Grinding Wheels From A Thermal Perspective In Cam Grinding Don Cutchall, Senior Applications Engineer - Winterthur Wendt USA
1:45-2:30 #1138 A Computer Model For Worn Cutting Edge In Hard Turning - Raja Kountanya, Senior Development Engineer - Diamond Innovations, USA
2:30-2:45 –BREAK–
2:45-3:30 #1161 New High Strength CBN Abrasive For Single Layer Tools - Cormac Lee, Applications Engineer, Mark O’Sullivan - Element Six, Ireland, Karolina Hannersjo - Element Six, Sweden
3:30-4:15 #1167 Development Of New PCBN Grade For Ferrous Powder Metal Finishing - Rich Maton, Toshiyuki (Tony) Sahashi, President - Sumitomo Electric Caribe Inc., USA