Mission:
To excite young people in materials, science, and engineering careers.
LETTER FROM THE DIRECTOR

I am pleased to share with you the annual report for fiscal year 2013. We have put together a few of ASM Materials Education Foundation’s key achievements from 2013 to highlight how your donations made a difference in the lives of students and teachers who were impacted through our Materials Camps and scholarships.

I encourage you to visit asmfoundation.org where you will find an audited financial statement and donor list for fiscal year 2013. I also encourage you to stay up-to-date with our achievements by reading our quarterly e-newsletter.

I am excited about what 2014 and beyond has in store and hope that you share in my excitement! Thank you for your continued support and generosity.

Nichol Campana  
Director of Development and Operations
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Pande, Chandra S.
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Plymouth Tube Company
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Ramulu, M.
Rapp, Robert A.
Ridgon, Michael A.
Romano, Ralph
Schultz, Jay W.
Schupmann, Richard G.
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Shih, Kuang-kuo
Shen, Rong J.
Shirk, Ginny
Shoemaker, Roger L.
Smith, M.
Spaulding, Scott W.
Spencer, Stephen W.
Strauss, Joseph T.
Trester, Paul W.
Turner, Arthur D.
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Classen, Daniel C.
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DeFeo, Angelo J.
Deshpande, Laxman
Dever, Joyce
Diehl, Kenneth L.
Dimiduk, Dennis M.
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Dougherty, James R.
Dowell, Michael B.
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Gabb, Timothy P.
Garrett, Steven M.
Gee, James T.
Giamme, Anthony F.
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Giro, Franck A.
Godoy, Joao M.
Goma, Kanji
Green, Allen C.
Griffith, Ronald L.
Guarini, Roberto N.
Guclu, Mustafa
Hallman, Richard T.
Hallquist, John O.
Halsey, William G.
Handwerker, Carol
Harkness, John C.
Harris, Helens J.
Harris, Kenneth
Harris, Leonhard
Harrison, John W.
Heist, Judy A.
Henriksen, Thomas
Hoolit, Leslie M.
Hinzmann, T. Brock
Hirayama, Yoshiaki
Hoffman, Raymond T.
Holloway, Paul H.
Horning, Mary Jane
Huff, Amy
Huffman, Dennis D.
Hull, Frederick C.
Hurst, James J.
Ice, Gene E.
Jarrett, John
Jenkins, James F.
Jessen, Jr., Nicholas C.

2013 ASM MATERIALS EDUCATION FOUNDATION ANNUAL REPORT

“Thank you for a fantastic week at the ASM Eisenmann Camp! I truly learned a lot of information and loved using all the equipment and technology. I’m even considering becoming a junior mentor in the future because of the impact this amazing camp had on me. I’ll never forget any of the friends or amazing people I met at this camp and I just wanted to say thank you to everyone for making this possible!”

Thomas Holtslander
2013 Eisenmann Materials
Camp student
WT Woodson High School
2013 DONORS, continued

FRIENDS S99 & UNDER

IN MEMORY OF DR. GEORGE A. ROBERTS Dianne and Jack Adleta Allegheny Technologies Inc. Aziz and Wendy Asphahani Stewart and Theresa Bachman Mrs. William A. Braceklein Bebe Dean Bowen Ms. Jean Deatherage

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Debbie Shlemire
2013 SCHOLARSHIP RECIPIENTS

George A. Roberts Scholarships

John Andreiuk
University of Alberta

Corey Bloniasz
Worcester Polytechnic Institute

Katrina Boos
The Ohio State University

Alexandra Glover
Michigan Technological University

2013 UNDERGRADUATE DESIGN COMPETITION PROGRAM WINNERS

Design—a critical component to revitalize engineering in materials education.

FIRST PLACE
Virginia Polytechnic Institute & State University
Team Members
Brendan Ondra
Daniel Flagg
Faculty Adviser
Dr. Douglas Holmes
“Controlled Deformation of a Slender Structure”

SECOND PLACE
Michigan Technological University
Team Members
Peter Enz
Bryan Turner
Ben Wittbrodt
Matt Wong (Team Leader)
Faculty Adviser
Dr. Calvin L. White
“Design of an Eta-Phase Strengthened Nickel-Base Alloy”

Winning abstracts online: asmfoundation.org.

2013 NATIONAL MERIT SCHOLAR
Liani Lye

Liani will graduate from California Academy of Math & Science, Carson, Calif., this year. She was selected based upon her outstanding academic achievements, the diversity of her activities, and her interest in pursuing a career in materials engineering.

2013 STUDENT CHAPTER GRANTS

2013 WINNERS

California Polytechnic University-Pomona
Clemson University
Indian Institute of Technology-Madras
University of Alabama-Birmingham
University of Minnesota
University of Wisconsin-Madison

View winning projects online at asmfoundation.org.

2013 CITY OF MATERIALS

Bringing materials outreach to future engineers and scientists.

The City of Materials website (cityofmaterials.com) is an interactive environment where students of all ages can experience how Materials Science and Engineering impacts their daily lives. Explore the city on a virtual city tour or head to the Science Center and learn about types of materials. You can also access “Materials Radio” and discover more about the world of materials!
“With today’s rapid technological advancements, it is important for teachers to acquire materials science knowledge to share with their students. Promoting science education is a key goal for H.C. Starck, because there is a lack of qualified scientists and engineers in the marketplace.”

Dmitry Shashkov
Organizer
2013 ASM Materials Camp
Teachers in Boston

EISENMAN ASM MATERIALS CAMP
PERMANENTLY ENDOWED STUDENT SCHOLARSHIPS DONORS

Air Products Inc.
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Mrs. Pergentina L. Deatherage
ASM Materials Education Foundation

“LIVING IN A MATERIAL WORLD” – K-12 TEACHER GRANTS PROGRAM

2013 WINNERS

Provides support and incentive for K-12 teachers to develop and implement science-teaching activities. Program started in 2001 and awards 10 grants at $500 each annually.

Polymers – Three Guided Inquiry Projects
Susan Hanifl, Enterprise High School, Calif. (Grades 9-12)

A Statue in a Material World - Copper and Steel Deterioration
Over Time
(Grades 7, 10, 11, 12)

Polymers in the Real World
Cindy Gander, Clinton High School, Wis. (Grades 10-12)

Polymers and Coatings: Real World Applications of Chemistry
Kieffer Tarbell, Portland Lutheran School, Ore. (Grades 7-12)

Replicating an Artifact/Materials Engineer Simulation
Karen Cobb, James Tillman Elementary, Fla. (Grades 2-5)

Integrating Materials Science Activities
Terri Cole, Echols Middle School, Ala. (Grade 8)

Concrete-Plastic Composites
Julie Olson, Second Chance High School, S.D. (Grades 9-12)

Materials Science in Water Filtration
Larry Hermansson, Washington Island High School, Wis. (Grades 9-12)

Not All Peanuts are the Same
Andrea Pulley, Matoaca Middle School, S.D. (Grades 9-12)

Students Talk to the International Space Station
Tom Maxwell, Thornton Middle School, Texas (Grades 6-8)

Getting our Hands on Earth Materials!
Sharon Long, Oakmont Elementary School, Tenn. (Grade 4)

500 AWARDS
SCIENCE & ENGINEERING FOURS

ASM Foundation in partnership with Intel has participated since 2001 presenting one “Most Outstanding Exhibit in Materials Science” award at approximately 500 regional science & engineering fairs throughout the world.

FAIRS

Girls Living in a Material World: How to Redesign for Life Skills
Rhonda Owens, Dickson 80E, Tenn. (Grades 6-12)

White Powder Lab, Alessandro La Gamba
St. Cecilia Catholic School, Ontario, Canada (Grades 1-8)

Using Ultrasounds to Study Engineered Materials
Maurice Stephenson, Venice High School, Calif. (Grades 9-12)

Crystal System, Denis Kogan
The Brooklyn School for Career Development 753K, N.Y. (Grades 9-12)

Junkyard Robots, Vicki Jeoule
Alliance High School, Neb. (Grades 10-12)

Little Cars, Sondra Lawson
Jimmy Carter Middle School, N.M. (Grade 8)

Building Efficiency
Nathan Moore, Santa Fe School for the Arts & Sciences, N.M. (Grades 7-8)

Whatever Floats Your Boat
Valencia Greenwood, Bingman Head Start, Texas (Preschool 3-4)
2013 INCOME AND EXPENSES

Revenue
Contributions & Other $706,670 66%
Investment Earnings $370,430 34%
$1,077,100 100%

Expenses
Scholarships $102,777 8%
Materials Camps $548,258 42%
Other Programs $19,198 2%
Administration $606,750 47%
Governance $14,555 1%
$1,291,538 100%

Audited Financials (prepared 6/16/2014)

2013 INVESTMENT COMMITTEE
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SCRA Applied R&D

NACE cKit with tools and supplies includes a 4-hour hands-on learning activity provided to all teachers attending ASM Materials Camp.

2013 NACE cKIT PROGRAM

NACE cKit with tools and supplies includes a 4-hour hands-on learning activity provided to all teachers attending ASM Materials Camp.
2013 ASM MATERIALS EDUCATION FOUNDATION ANNUAL REPORT

"We have worked with metals, polymers, glass, and other materials and it has been so much fun you don’t realize you are actually learning a great deal. One of the really cool aspects is that the projects we are taught can be done fairly quickly. So the students can start and then see the end result in the same class time."

Becky Howard
2013 Meridian, Miss. Materials Camp – Teachers
Marion Park Alternative

2013 KISHOR M. KULKARNI HIGH SCHOOL TEACHER OF THE YEAR
Caryn Jackson
Tolles Career and Technical Center in Plain City, Ohio

Caryn Jackson teaches science at Tolles Career and Technical Center in Plain City, Ohio. Her students are generally not on a career path that involves a college degree. Instead, Tolles, like most career centers, is focused on preparing its students for immediate careers. It initially took Jackson a couple of years to convince her administration to allow her to teach materials science at her school. She prevailed and has now been successfully teaching materials science in her building for about four years.

"Mrs. Jackson’s ability to move students toward a genuine interest in materials education is one I have rarely seen and is as natural to her as breathing. One will often find Mrs. Jackson in the cafeteria or in the library tutoring students who are struggling. In her classroom, she conducts labs so that all students are able to participate and truly understand the concepts of materials. On a humorous note, I never know what lab materials she will carry in each morning. Her arms are always full as she walks to her classroom to prepare for labs. Some days I will ask, but I better be prepared for an extensive answer about everything students are about to learn that day! Our district has now gone from offering two-semester sessions of Materials Science to seven full-year sessions in just three years. Students are excited, engaged, and they are telling their friends, “Science is FUN!”"

Tonya N. Ramey
Academic/Assessment Supervisor
Tolles Career & Technical Center

2013 ASM FOUNDATION PACESETTER AWARD

Thermal Spray Technologies Inc. (TST), is committed to enhancing the knowledge and expertise of materials engineering among teachers and young people. TST supports educational opportunities throughout the year, encouraging future leaders to understand and pursue careers in materials science and engineering. TST’s collaboration with ASM Materials Education Foundation has enabled educators to team up and appreciate the opportunities that lie within the materials science and engineering industry. ASM’s materials camps have a strong impact on teachers and help them develop upcoming professionals in materials science and engineering; it is truly one of ASM’s most impressive programs. TST is honored to support such an effective educational program.

2013 GEORGE A. ROBERTS AWARD

Dr. Donald R. Muzyka is retired President and CEO, Special Metals Corp., New Hartford, N.Y. He has been active in ASM since joining in 1963 and was elected a Fellow in 1977. He has been involved in many Chapter activities and was Chairman of the Lehigh Valley Chapter in 1976-1977. He served on many ASM committees including the Diamond Decade, Awards Policy, Nominating, Finance, and Investment. He was a Trustee in 1982-84. He was President of ASM in 2003, served as VP in 2002; and Past President in 2004. Muzyka joined the Board of the ASM Materials Foundation in 2000 and has served as a Trustee. He was Treasurer from 2004 to 2010.

The duties of a Foundation Board Member include working with students, raising money and “running the business.” Muzyka has been involved with all three. In particular, since he retired in 2000, he has been active in assuring that the ASM/Lehigh Univ. Student and Teacher Materials Camps have sufficient funding. He tries to inspire the students into studying materials through a presentation at the closing of each Student Camp at Lehigh. He has also been successful in encouraging several individuals, companies, and Foundations to volunteer at and/or financially support ASM Materials Camps.

Muzyka earned his B.S. in Mechanical Engineering from the Univ. of Mass. in 1960. He received his M.S. in Metallurgy from RPI in 1966 and his Ph.D. in Materials Science from Dartmouth in 1967. He devoted his entire career, spanning more than 40 years, to the specialty metals industry, starting as a metallurgist at Pratt & Whitney Aircraft in 1960. After completing his graduate studies in 1966, he joined Carpenter Technology where he was appointed Vice President Technical in 1979. In 1982, he joined Cabot Corp. where he became manager of Cabot Refractory Metals. He completed his career at Cabot as VP Corporate R&D. Muzyka joined Special Metals as President in 1990; he became President and CEO after taking the company public in 1996. He retired on September 1, 2000.