

**SOCIETY FOR THE ADVANCEMENT
OF MATERIAL AND PROCESS
ENGINEERING
NEW JERSEY CHAPTER**

**MAY NEWSLETTER & MONTHLY NOTICE
MAY 6, 2010 (1ST THURSDAY)**

**PROCESS CONSIDERATION THAT ENHANCETHE COMMERCIAL VIABILITY
OF RADIATION CURED FIBER REINFORCED COMPOSITES**

**ANTHONY J. BEREJKA
IONICORP
4WATCH WAY
HUNTINGTON, NY 11743
631-549-8517
Email: berejka@msn.com**

MEETING DETAILS

Place: Bridgewater Manor, Bridgewater, NJ; (908) 658-3000
Time: 5:30 Cocktails (Cash Bar); 6:15 Dinner; 8:30 Adjourn
Cost: \$10.00 Advanced Registration; \$15.00 at Door; Students - Free

This meeting is open to all SAMPE members, spouses, guests, and other interested parties

Reservations please contact John Osterndorf at 973-248-5885 or by email at sampejohn@yahoo.com
by noon the Wednesday before the meeting.

Directions to Bridgewater Manor: From I-287 north, take exit 22A (206 south). Go thru two lights, Bridgewater Manor is on right. From I-287 south, take exit 22. Make right at end of ramp. Make next left, a jughandle to cross 202/206 to go south on 202/206. Go thru three lights, Bridgewater Manor is on the right.

SAMPE Best Chapter Award Winner:

1990, 1991, 1992, 1993, 1995, 1996, 1997, 1998, 1999, 2000, 2001

SAMPE Chapter Service Excellence Award Winner:

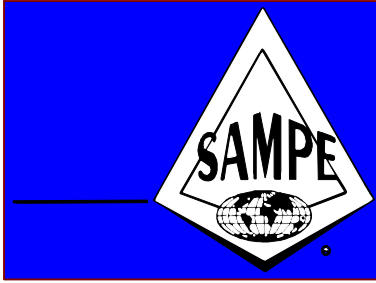
2002, 2003, 2004, 2005, 2006 (award retired after 2006)

SAMPE Chapter Sponsored Conferences:

ISSE – 1990(Anaheim), 1994(Anaheim), 1996(Anaheim), 1998(Anaheim), 2002(Long Beach)

ISTC – 1981(Mt. Pocono), 1989(Atlantic City), 2006(Dallas), 2009(Wichita)

ISEC – 1994(Parsippany)



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2009 – 2010 MEETING SCHEDULE

September 10, 2009 – NDE of Multilayered Composites, Nicholas Gianaris, General Dynamics Land Systems, Sterling Heights, MI	March 4, 2010 – Growing Demand for Carbon Fiber Nanotechnology Composite Products and Applications, Dr. Louis A. Pilato, Pilato Consulting, Bound Brook, NJ
October 1, 2009 – Development and Testing of Prestressed Carbon Fiber Composite Overwrapped Gun Tubes, A. G. Littlefield, Benet Laboratories, Watervliet, NY	April 1, 2010 – Rutgers’s Concrete Canoe Construction Using Carbon and Glass Reinforced Grids, Presented by the Rutgers Canoe Team
October 19 – 22, 2009 41 st International SAMPE Technical Conference, Wichita, KS, Sponsored by the New Jersey and Wichita Chapters	May 6, 2010 – Process Considerations that Enhance the Commercial Viability of Radiation Cured Fiber Reinforced Composites, Anthony Berejka. Ionicorp
November 5, 2009 – UV Curing Technology Overview and Applications in Composite Structures, Jim Wittig- President- ACTEGA Radcure, Inc	May 17 – 20, 2010 – 54 th International SAMPE Symposium & Exhibition, Washington State Convention Center, Seattle, WA Sponsored by Seattle Chapter
December 3, 2009 – Immiscible Polymer Processing to Produce Structural Materials from Plastic Waste, Tom Nosker- Research Professor – Rutgers University	June 3, 2010 – Nanotechnology 2010, An Update, Dr. Louis A. Pilato, Pilato Consulting, Bound Brook, NJ
February 4, 2010 – High Performance Thermoplastics, Larry Stanislaw- Sales Manager- Westlake Plastics	July 8, 2010 – 27 th Annual NJ SAMPE Golf Tournament, Picatinny Arsenal, NJ

Notes The NJ Chapter sponsors a student chapter at Drexel University.

APRIL MEETING

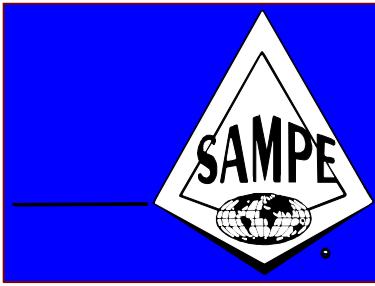
At the April meeting, the Rutgers canoe team gave an excellent presentation entitled Rutgers’s Concrete Canoe Construction Using Carbon and Glass Reinforced Grids. The New Jersey Chapter wishes to thank the Rutgers Canoe Team for the excellent presentation.

UPCOMING CONFERENCES

**SAMPE 2010 – ISS&E – Seattle, WA. May 17 – 20, 2010
Sponsored by SAMPE Seattle Chapter**

**SAMPE 2010 – ISTC – Fall Technical Conference, Salt Lake City, UT
October 11 – 14, 2010, Sponsored by SAMPE Utah Chapter**

JEC 2010 Asia Show – Singapore, October 11 -14, 2010



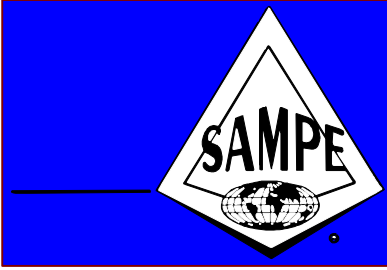
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**PROCESS CONSIDERATION THAT ENHANCETHE COMMERCIAL VIABILITY OF
RADIATION CURED FIBER REINFORCED COMPOSITES**

**ANTHONY J. BEREJKA
IONICORP**

ABSTRACT: Although the use of ionizing radiation to cure the matrix of fiber reinforced composites had been demonstrated in the late 1960's and a fair amount of research has been since conducted, radiation processing has not yet been used to produce commercial products in the composites area. An automated, integrated systems approach is needed if there is to be industrial acceptance of this energy-efficient curing technology. A step-by-step review of processes required to elevate the radiation curing of composites to an industrially viable level is presented. This will include comparisons of the means of forming composites, such as molding alternatives or automated approaches to using prepregs, comparisons of different source technologies, such as high energy electron beams (EB), X-radiation and low-energy EB, and comparisons of using alternative chemistries for matrix materials. Estimates of the process benefits of automated manufacture of radiation cured composites will be compared with historic uses of thermal composite curing and with traditional uses of metal fabrication in some application areas, such as automotive. The product life-cycle strength-to-weight benefits of the use of composites, including the estimated consumer benefits, will be contrasted systems now in use in terms of overall product life energy savings benefits.

Biography: Since 1981, Tony Berejka has run his own consulting firm, **IONICORP⁺**, in Huntington, New York, which deals in materials and process development, venture appraisals and technology transfer. Clients have included major corporations, such as Exxon Chemical, Mobil Chemical, Bristol-Myers Squibb and numerous smaller and some start-up companies. He was a Vice-President at Radiation Dynamics, Inc. (1978-1981), now IBA Industrial, the Long Island based supplier of high energy industrial electron beam accelerators. Following nearly a decade at Exxon Chemical Research in New Jersey (1966-1974), where he was engaged in polymer and specialty chemical development, Tony became involved in radiation processing at the Raychem Corporation (1974-1978), the world's largest industrial user of this processing method, now Tyco Electronics. At Raychem, he developed the corrosion protection wrap for the below grade section of the Alyeska pipeline (400 miles of 48 inch diameter pipe). Before joining Exxon, he worked in the graphic arts and adhesives areas in new product and materials development (1961-1966). Tony has published numerous articles, many dealing with the market, technology and environmental aspects of radiation processing. He holds fifteen US patents, many related to materials used in irradiation technology, with two pending. He received his Bachelors degree in Chemistry from the University of Notre Dame (1959) and his Masters of Business Administration with a Certificate in International Business from Seton Hall University (1970). He is a member of the American Chemical Society (ACS -- Polymeric Materials Science and Engineering Division), of ASTM International (ASTM -- Committees D-1 on Coatings, D-14 on Adhesives, and E-10.01 on Dosimetry), of the Society of Plastic Engineers (SPE - Medical Plastics Division), of the Cold Spring Harbor Laboratory Association and a founding member and Past-President of RadTech International North America (1991-1992), the industrial association for the advancement of radiation technology.



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NEW NJ SAMPE WEBSITE

Visit www.NJSAMPE.org

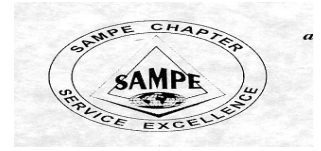
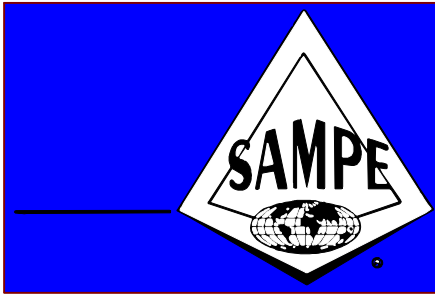
We now have a website. We need lots of input and recommendations from you to make it useful. All of our sponsors have links to their sites. If you are a sponsor, please make sure it's linked to the right site. If you are a consultant and want your resume on line, we have a place for that too. Also on the website you will find a history of our chapter and even our Bylaws. There's also a history of the Bridge Building contest, going all the way back to when it was only a NJ high school contest.

So visit the website and get back to us with your recommendations and ideas and critiques. Please send them to hskliger@comcast.net.

ELECTION OF OFFICERS FOR 2010 – 2011 Fiscal Year

At the April Board of Directors Meeting of the New Jersey Chapter of SAMPE, the following slate of candidates were proposed for the next Fiscal Year 2010– 2011:

Chairman:	<i>Ben Rasmussen</i>
Vice Chairman:	<i>Gail DiSalvo</i>
Treasurer:	<i>John Osterndorf</i>
Secretary:	<i>Borys Schafran</i>
Directors:	<i>Howard Kliger</i>
	<i>Louis Pilato</i>
	<i>Ben Rasmussen</i>
Programs:	<i>Tony Constantino</i>



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**27th ANNUAL NJ SAMPE
GOLF TOURNAMENT**

**DATE: JULY 8, 2010
PLACE: PICATINNY GOLF COURSE
PICATINNY ARSENAL, NJ
TEE TIME: 11:00 A. M.**

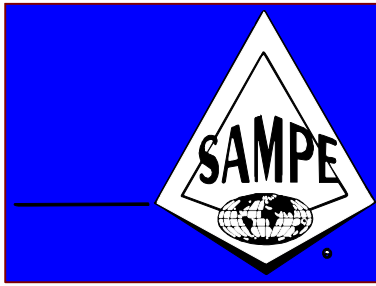
**COST: GOLF AND DINNER: \$60.00
DINNER: \$10.00
(Dinner at approximately 5:00 PM)**

**CONTACT JOHN OSTERNDORF BY E-MAIL AT
sampejohn@yahoo.com TO SIGN UP**

RESERVATIONS MUST BE MADE BY JUNE 26, 2010 (NO EXCEPTIONS)

The 27th Annual New Jersey Chapter of SAMPE Golf Tournament is returning to Picatinny Golf Course. The date of the tournament is July 8, 2010. Picatinny Golf Course has a practice facility (chipping, putting, and driving into a net) at the Club House for golfers who arrive early.

Directions to Picatinny: Take I-80 westbound and at Exit 34 to Route 15 northbound (Sparta & Picatinny Arsenal). Go through traffic light; bear right to Picatinny Entrance (up small hill) before underpass. Enter Picatinny and continue to the guard shack. The guard shack will have the names of those attending the golf tournament and dinner. All attendees must have identifications (preferably photo identification) for entrance onto Picatinny Arsenal. Please follow the Guards instructions. Your cars will be searched (including the engine and trunk). After the security check, follow the main road to Cannon Gate. At the Cannon Gate bear to the right (before the traffic light) and follow for approximately a quarter of a mile and left turn. The golf course is on your left.



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EXECUTIVE BOARD

CHAIRMAN:

Benjamin M. Rasmussen
BMR Associates
908-561-0796/fax: 908-753-7917
bmrassociates@netcarrier.com

VICE CHAIRMAN:

Gail D. DiSalvo
GTD Consulting
908-953-0849/fax: 908-766-6373
disalvogail@aol.com

TREASURER:

John F. Osterndorf
973-248-5885 (cell)
sampejohn@yahoo.com

SECRETARY:

Borys Schafran
Evonik Degussa Corporation
Tel 973-541-8172/fax 973-541-8161
borys.schafran@evonik.com

PROGRAMS:

Tony Constantino
Fiber-Line Inc
215-997-9181
Cell : 267-885-7144
tconstantino@fiber-lineinc.com
Tconstantino2@yahoo.com

DIRECTORS:

Howard S. Kliger
H. S. Kliger & Associates, Inc.
732-469-7646/fax: 732-469-6641
hskliger@comcast.net

Louis A. Pilato
Pilato - Consulting
732-469-4057/fax: 732-764-9747
Pilato-consulting@att.net

Benjamin M. Rasmussen
BMR Associates
908-561-0796/fax: 908-753-7917
bmrassociates@netcarrier.com

PAST CHAIRMAN:

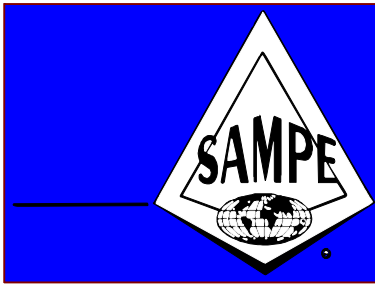
1977 – 1978 Raymond F. Wegman
1978 – 1979 William J. Russell
1979 – 1980 Michael Michno
1980 – 1981 Fred H. Ancker
1981 – 1982 Natalia Chujko
1982 – 1983 Robert J. Narsavage
1983 – 1984 Richard W. Reiter
1984 – 1985 Howard S. Kliger
1985 – 1986 John Burlage
1986 – 1987 John F. Osterndorf
1987 – 1988 Thomas J. Green
1988 – 1989 Harry S. Katz
1989 – 1990 Benjamin M. Rasmussen
1990 – 1991 Harry Tenney
1991 – 1993 Louis A. Pilato
1993 – 1994 John Burlage
1994 – 1995 Richard A. Walther
1995 – 1996 Frans van Anterpen
1996 – 1997 Kathleen A. Froelich
1997 – 1998 Gail D. DiSalvo
1998 – 1999 Ash Chopra
1999 – 2010 Benjamin M. Rasmussen

SAMPE FELLOWS:

1985 Raymond F. Wegman
1987 Dr. Carl H. Zweben
1989 Robert Pickney
1990 Dr. Frank K. Ko
1992 Fred H. Ancker
1993 Leonard Poveromo
1999 Dr. Howard S. Kliger
2001 Dr. Louis A. Pilato
2001 Harry S. Katz

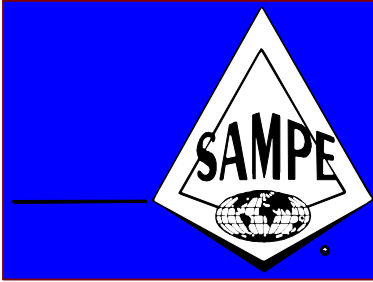
SENIOR HONORARY MEMBERS:

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Edward A. Gallagher
Charles N. Muldrow
William D. Timmons
Raymond F. Wegman



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<p>ACTEGA Radcure, Inc. Jim Wittig 5 Mansard CT. Wayne, NJ 07470 Tel: +1 973 808 1002 Fax: +1 973 808 6886 jim.wittig@altana.com www.actega.com</p>	<p>A & P Technologies Andrew A. Head 4595 East Tech Drive Cincinnati, OH 45245 513-688-3200 Fax: 513-688-3201 ahead@braider.com www.braider.com</p>	<p>Engineered Fibers Technology Robert E. Evans 25 Brook Street Shelton, CT 06484 203-922-1810, X335 Fax: 203-922-1814 efiberstec@aol.com www.EFTfibers.com</p>
<p>Airtech International, Inc. Peter Grantham 5700 Skylab Road Huntington Beach, CA 95647 714-899-8100 Fax: 714-899-8179 pgrantham@airtechintl.com www.airtechintl.com</p>	<p>Alcan Baltek Corporation Marc A. Anderson 108 Fairway Court Northvale, NJ 07647 201-767-1400 Fax: 201-387-6631 marc.anderson@alcan.com www.alcanbaltek.com</p>	<p>Evonik Degussa Corporation Borys Schafran 379 Interpace Parkway Parsippany, NJ 07054 973-541-8172 Fax: 973-541-8161 borys.schafran@evonik.com www.evonik.com</p>
<p>Argosy International Inc. Paul Marks 14 Penn Plaza New York, NY 10001 (212) 268-0003, X101 pmarks@argosyinternational.com www.argosyinternational.com</p>	<p>Bryte Technologies Chuck Chakrabarti 1235 Beacon Hill Crossing Alpharetta, GA 30005 (770) 475-7977 Fax: (770) 475-7477 cchakrabarti@brytotech.com www.brytotech.com</p>	<p>Fabric Development Inc. Mary P. Shafer 1217 Mill Street Quakertown, PA 18951 215-536-1420 mshafer@fabricdevelopment.com www.fabricdevelopment.com</p>
<p>Automated Dynamics David Hauber 407 Front Street Schenectady, NY 12305 518-377-6471, X226 Fax: 518-377-5628 dhauber@automateddynamics.com www.automateddynamics.com</p>	<p>Coast-Line Int'l Heather O'Rourke 274 Bangor Street Lindenhurst, NY 11757 631-226-0500 X25 Fax: 631-226-5190 heathero@coast-lineintl.com www.coast-lineintl.com</p>	<p>General Magnaplate Edmund Aversenti 1331 US Route 1 Linden, NJ 07036 908-862-6200 Fax: 908-862-6110 eaversenti@magnaplate.com www.magnaplate.com</p>



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<p>Gerber Technology Inc Dudley Fenn 24 W. Industrial Park Road Tolland, CT 06084 860-871-8082 Fax: 860-871-3730 dfenn@gerbertechnology.com</p>	<p>Kenrich Petrochemicals Mr. Salvatore J. Monte 140 East 22nd St., POB 32 Bayonne, NJ 07002 201-823-9000 Fax: 201-823-0691 sjmonte@4kenrich.com</p>	<p>Northern Fiber Glass Sales Richard Hewitt PO Box 2010 Hampton, NH 03843-2010 603-926-1910, ext. 16 Fax: 603-926-0598 rvh@nfgsales.com www.NFGSales.com</p>
<p>GTD Consulting Gail DiSalvo 127 Rippling Brook Way Bernardsville, NJ 07924 908-953-0849 Fax: 908-766-6373 gail.disalvo@att.net</p>	<p>Loctite Corporation George Newton 1001 Trout Brook Crossing Rock Hill, CT06067 315-492-7571 george.newton@us.henkel.com www.loctite.com</p>	<p>Prince Sports Incorporated Steve Davis One Advantage Court Bordentown, NJ 08505-7620 609-291-5800 stevedavis@princesports.com www.princesports.com</p>
<p>Gentex Corporation PO Box 315 Carbondale, PA 18407 717-282-2814, X214 www.gentex.com</p>	<p>Lonza Group Sajal Das 90 Boroline Road Allendale, NJ 07401 201-316-9218 sajal.das@lonza.com www.lonza.com</p>	<p>Utility Development Harry Katz 112 Nylon Road Livingston, NJ 07039-1006 973-994-4334 Fax: 973-994-3341 Harryskatz@aol.com www.udccorp.com www.radcure.com</p>
<p>Henkel Aerospace Michael Portwood 2850 Willow Pass Road Bay Piont, CA 94565 925-458-8000 Cell 717-817-1532 Michael.portwood@us.henkel.com www.aerospace.henkel.com</p>	<p>Mektech Composites Inc. Aram Mekjian 40 Strawberry Hill Road Hillsdale, NJ 07642 201-666-4880 Fax: 201-666-4303 mekmail@prodigy.net</p>	<p>3M Aerospace Renee Rainboth 3M Center St. Paul, MN 55144-1000 (856) 769-8565 Fax: (856) 769-8566 rarinboth@mmm.com www.3m.com</p>

