

---

# Minnesota Microscopy Society

Local affiliate of the Microscopy Society of America  
and the Microbeam Analysis Society



## Newsletter

February 2006

---

## MinnTS

(Minnesota Technical Symposium)

Thursday, March 16, 2006

## Alternative Energy Sources

MinnTS is an annual joint meeting of area technical and scientific organizations. This will be the fourth such symposium. MinnTS was formed to provide a venue for local technical professionals to get together for networking, dining, and to provide an enriching evening of top quality speakers. Check the MinnTS web site at [www.MinnTS.org](http://www.MinnTS.org) for any late-breaking news about the meeting.

### Location

Medtronic Inc.  
710 Medtronic Parkway (I-694 & Hwy 65)  
Fridley, MN 55432

### Schedule

5:00 - 6:00	Registration, Tours and Social
6:00 - 7:00	Dinner
7:00 - 7:10	Welcome & Introductions
7:10 - 7:20	Overview - Alternative Energy: John Goodman
7:20 - 8:05	Dick Hemmingsen
8:05 - 8:15	Break
8:15 - 9:00	John Goodman

**Cost** \$25 per person.

### Tours

Tours of the Medtronic laboratories will be available again this year. If you are interested in joining one of the tours, please arrive by 5:00 to make sure you can complete the tour before dinner.

### Speakers

**Dick Hemmingsen** - Institute for Renewable Energy and Environment (IREE), Univ. of Minnesota. *"Biological Energy Sources and MN-based R&D"* IREE's mission is to promote statewide economic development, sustainable, healthy and diverse ecosystems and national energy security through the development of bio-based and other renewable resources and processes. Mr. Hemmingsen's presentation will focus on Minnesota's vast biological energy sources and current R&D activities at the University of Minnesota.

**John Goodman** - Entegris, Inc.

*"Fuel Cells and the Potential Hydrogen Energy Future"* Most fossil fuels used in the U.S. must be imported, posing problems for national energy security. The negative impact of the combustion of fossil fuels on the environment is well documented, and the long-term solution to these challenges may be the transition to a hydrogen-based energy economy. (*Continued on page 2.*)

### Registration

Reservations **MUST** be made no later than **Monday, March 13th**. Register at [reservations@minnts.org](mailto:reservations@minnts.org), or by phone at 651-236-5470 (Bede Willenbring). Include your name, company, phone number, e-mail address and Society affiliation. Reservations cannot be cancelled after March 13th.

**John Goodman** - (continued)

This presentation will provide an overview of the rationale to move from fossil fuels to alternative energy sources and ultimately a hydrogen energy future. Fuel cell technology will be described, commercialization of fuel cells and the parallels between the development of the microelectronics industry and the potential development of a fuel cell industry will also be discussed.

**Menu**

- ◆ Garden salad with assorted dressings
- ◆ Bakery fresh rolls and butter
- ◆ Herb crusted chicken with pan glaze, or Salmon with lemon and dill, or wild mushroom strudel
- ◆ Rice or potatoes
- ◆ Steamed carrots
- ◆ Assorted desserts (mini tarts, chocolate dipped fruits, mini cakes and pies)
- ◆ Assorted soda and water
- ◆ Coffee service with hot tea

**Sponsoring Organizations**

American Chemical Society, MN Ch. (ACS)

American Institute of Chemical Engineers,  
Upper Midwest Section (AIChE)

American Society for Materials, MN Ch. (ASM)

American Vacuum Society, MN Ch. (AVS)

Electrochemical Society (ECS)

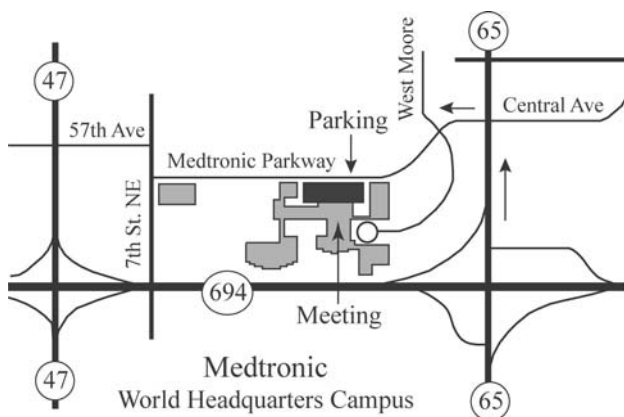
Minnesota Microscopy Society (MMS)

Power Engineering Society - IEEE (PES)

Society for Applied Spectroscopy, MN Ch. (SAS)

SEMI-MN

Society for Information Display, Midwest Ch. (SID)



*Location map for the MinnTS 2006 meeting at the Medtronic world headquarters.*

**Membership Notice**

The Minnesota Microscopy Society's bylaws state that the bylaws can be changed at any regular meeting provided that members receive notice of the proposed change(s) by mail, at least 30 days prior to that meeting.

At the Spring Symposium the Board would like to bring up two matters for consideration by members of the Society. First, the Board would like to propose modifying the bylaws so that notification of upcoming bylaw discussions do not have to be done by traditional mail. Given the changes in technology that have occurred since the bylaws were written, the Board would like to modify them so that notice can be via the newsletter, regardless of whether it is sent by mail, e-mail, or is posted on the Society's web site.

The second issue for discussion is the matter of when dues are paid. Presently the bylaws state that the Society's membership year runs from October 1 to September 30. When it comes to paying dues, this can be confusing. Often people will pay their dues at the Spring Symposium, and it is not clear as to whether those dues are for the past year or for the upcoming year. The Board would like to change the Society's year to the calendar year. Dues that are paid in a given calendar year would apply to that year.

Come to the Spring Symposium and put in your two cents' worth!!!

**Employment Opportunity**

Medtronic has an opening for a Technician/Sr. Technician at their Energy & Component Center in Brooklyn Center, MN. The job would involve the analysis of welds in both ferrous and nonferrous metals, and would include metallurgical sample preparation, etching, grain-size analysis, weld penetration and quality testing, and sensitization testing. Please apply on-line at <http://www.medtronic.com>; req.# 47870.

---

## Future Events

---

### MMS Spring Symposium

Friday, April 21, 2006

Topic - "Microscopy of Failure Analysis"

Once again the Minnesota Microscopy Society will be holding its Spring Symposium at the Science Museum of Minnesota. Members should note that the meeting will be held earlier than usual this year. In recent past it was held on the first Friday of May. This year the Symposium will be in April to avoid conflicting schedules with school, and to attempt to attract more student members.

**Location:**

Science Museum of Minnesota  
120 W. Kellogg Blvd., St. Paul

---

### M&M 2006

(Microscopy and Microanalysis)

**Location:**

Navy Pier, Chicago, IL

**Dates:**

July 30 - August 3, 2006

**More Information:**

<http://MM2006.microscopy.org>

---

### Scanning 2006

**Location:**

Hotel Washington, Washington, D.C.

**Dates:**

April 25 - April 27, 2006

**More Information:**

FAMS, Inc.  
P.O. Box 485, Mahwah, NJ 07430-0485  
201-818-1010; [www.scanning.org](http://www.scanning.org)

---

### Minnesota Academy of Science

**Location:**

Macalester College  
1600 Grand Avenue, St. Paul, MN

**Dates:**

April 28 and 29, 2006

---

### Minnesota Microscopy Society Goes to Chicago for "M&M 2006"

This year Microscopy and Microanalysis 2006 will be held in our backyard - Chicago. As discussed briefly at last year's Spring Symposium, we thought there might be some interest in going to Chicago as a group. So, we are looking into the viability of a charter bus.

The charter bus will hold up to 47 passengers and include rest room facilities on board. Pick up will be at a predetermined location in the Metro area (date to be set). On arrival, passengers will be dropped off at their respective hotels. The ride is nonstop and takes about seven hours. After the conference, the bus will pick us up in Chicago at a set time and return us to the Metro area launch site.

Cost: The total cost of the charter bus is about \$4000 round trip. If 20 people sign up, it would be about \$200 per person (of course, less if there are more people). Remember, there would be no additional transportation costs, as there would if going by air (e.g. taxi from airport to hotel).

If you are interested, we need your feedback. Let us know:

- 1) If we have enough people sign-up, and MMS can arrange a group trip, would you be interested in going by bus?    Y    N
- 2) Which day would be better for departure to Chicago?
  - a. Friday, July 28<sup>th</sup>
  - b. Saturday, July 29<sup>th</sup>
- 3) Which day would you prefer to return to the Twin Cities?
  - a. Thursday, August 3<sup>rd</sup>
  - b. Friday, August 4<sup>th</sup>
- 4) Would your company or institution allow you to travel this alternative way?

Please respond ASAP to Mike Coscio at 763-505-4561 or [mike.coscio@medtronic.com](mailto:mike.coscio@medtronic.com). We will try to put this together if there is enough interest.

---

## Sustaining Members

Sustaining members are the backbone of financial support for the Society. These members make it possible for the Society to support Project Micro and to cover many expenses of the regular meetings and the Spring Symposium. We greatly appreciate the continued support of these individuals and corporations. To become a Sustaining Member, complete and return the MMS membership form at the end of the newsletter.

Tony Bourgholtzer	<b>Foundation for Advances in Medicine &amp; Sci.</b>	201-818-1010
Michael Boykin	<b>Mager Scientific, Inc.</b>	734-426-3885
Mike Coscio	<b>Medtronic, Inc.</b>	763-505-4561
Matt Dugas	<b>ARCB</b>	651-789-9000
Charles Garber	<b>SPI Supplies</b>	610-436-5400
Larry Hanke	<b>Materials Evaluation &amp; Engineering Inc.</b>	763-449-8870
Mark Kelsey	<b>PGT</b>	708-386-9684
Ken Kilby	<b>Leeds Precision Instruments</b>	612-546-8575
Jim Liddle	<b>HITACHI High Technologies America, Inc</b>	847-273-4359
Peter McSwiggen	<b>McSwiggen &amp; Associates</b>	612-781-2282
Ruth Murray	<b>Oxford Instruments USA</b>	859-384-9861
Steven Neptun	<b>FEI</b>	847-277-9364
John Newman	<b>Evans Phi</b>	
Jack Vermeulen	<b>Ted Pella, Inc.</b>	800-237-3526
Hugh Robinson	<b>Crane Engineering and Forensic Services</b>	763-557-9090
Gary Saxrud	<b>Fryer Company, Inc.</b>	952-942-6747
John Treadgold	<b>Carl Zeiss SMT</b>	630-497-8166
Bede Willenbring	<b>BY Design of New Hope, Inc.</b>	
Ken Witherspoon	<b>IXRF Systems, Inc.</b>	281-286-6485

If any Sustaining Members are missing from this list, *please* contact either: Jason Heffelfinger (763-514-1021, [jason.r.heffelfinger@medtronic.com](mailto:jason.r.heffelfinger@medtronic.com)) or Peter McSwiggen (612-781-2282, [PMcS@McSwiggenAssoc.com](mailto:PMcS@McSwiggenAssoc.com)).

## MMS Patron Members

The Minnesota Microscopy Society would like to express sincere thanks to our Patron Members. These members provide financial support to the organization above the standard membership fee. This type of added support makes it possible for MMS to maintain its financial well being. To become a Patron Member, complete and return the MMS membership form at the end of the newsletter.

<b>Erin Brown</b>	Ecolab Inc., St. Louis Park	<b>Susan Okerstrom</b>	Medtronic Inc., Brooklyn Center
<b>Mary Buckett</b>	3M Company, St. Paul	<b>Ev Osten</b>	3M Company, St. Paul
<b>Barry Carter</b>	University of Minnesota, Mpls	<b>Ann Palmer</b>	University of Minnesota, Mpls
<b>Carolyn Casoria</b>	Honeywell Int., Mpls	<b>Jeff Payne</b>	3M Company, St. Paul
<b>Ellery Frahm</b>	University of Minnesota, Mpls	<b>Ky Pham</b>	Medtronic Inc., Mpls
<b>Chris Frethem</b>	University of Minnesota, Mpls	<b>Patricia Sanft</b>	H.B. Fuller Co., St. Paul
<b>John Humenansky</b>	Guidant Technology, Arden Hills	<b>Ove Thompson</b>	FEI Company, Excelsior
<b>Robert Lunquist</b>	Boston Scientific, Mpls	<b>Mark Windland</b>	Honeywell, Plymouth
<b>Stuart McKernan</b>	University of Minnesota, Mpls	<b>Klaus Wormuth</b>	SurModics, Eden Prairie
<b>Eric Morrison</b>	Ecolab Inc., Mendota Heights		

## MMS BOARD and OFFICERS 2005-2006

**President:** Jason Heffelfinger, Medtronic Inc.,  
6700 Shingle Creek Parkway, Brooklyn Center, MN 55350;  
(763) 514-1021; jason.r.heffelfinger@medtronic.com

**Past-President:** Dwight Erickson, 3M Center, Bldg.  
251-1A-03, St. Paul, MN, 55144; (651) 736-2830;  
dderickson3@mmm.com

**President-Elect:** Sue Okerstrom, Medtronic Inc.,  
7000 Central Ave. NE., Minneapolis MN 55432  
(612) 514-4678; sue.okerstrom@medtronic.com

**Secretary:** Robert Lundquist, Boston Scientific,  
One SciMed Place, Maple Grove, MN 55442;  
(763) 494-7945; robltt@juno.com

**Treasurer:** Bede Willenbring, H.B. Fuller Co., St. Paul, MN;  
(651) 236-5470; Bede.Willenbring@HBFuller.com

**Corporate Liaison:** Jason Heffelfinger, Medtronic Inc.,  
6700 Shingle Creek Parkway, Brooklyn Center, MN 55350;  
(763) 514-1021; jason.r.heffelfinger@medtronic.com

**Webmaster:** Stuart McKernan, IT Characterization Facility,  
University of Minnesota, Minneapolis, MN, 55455;  
(612) 624-6009; stuartm@umn.edu

**Newsletter Editor:** Peter McSwiggen, McSwiggen & Associates,  
2855 Anthony Lane S., Suite B1, St. Anthony, MN, 55418;  
(612) 781-2282; PMcS@McSwiggen.com  
Copy Editing: Barbara Meier

**MAS Representative:** Michael Coscio, Medtronic Inc.,  
710 Medtronic Parkway, Minneapolis, MN 55432-5604;  
(763) 505-4561; mike.coscio@medtronic.com

**ProjectMicro Director:** Jeff Payne, 3M Center,  
Bldg. 201-BE-16, St. Paul, MN 55144-1000;  
(651) 733-2352; jjpayne@mmm.com

### Other Board Members:

Ev Osten, 3M Center, St. Paul, MN;  
(651) 736-0104; efosten@mmm.com

Paul Baker, Medtronic Inc., Minneapolis, MN;  
(763) 514-4519; paul.baker@medtronic.com

Mary Swierczek, 3M Center, St. Paul, MN;  
(651) 736-5087; mswierczek@mmm.com

Steve Block, JEOL USA, Inc.,  
s-block@comcast.net

Ann Palmer, University of Minnesota  
Dept. of Pediatrics, Mpls, MN; palme003@umn.edu

Ky Pham, Medtronic Inc., Minneapolis, MN;  
(612) 514-4705; ky.pham@medtronic.com

Peter Yurek, Medtronic Inc., Minneapolis, MN;  
peter.yurek@medtronic.com

## Minnesota Microscopy Society – Membership Form

All microscopists are urged to support their Society at one of the membership levels offered below. The more dues-paying members we have, the more likely we are to attract sustaining corporate memberships which form the financial backbone of our Society. Often, supervisors will support MMS memberships out of their project budget because they recognize that it is a very inexpensive way to maintain and increase the skills of their microscopists. If you have been a member over the years and recognize the value of MMS to the community of microscopists it serves, consider upgrading your membership this year to the patron or sustaining level. Thank you.

Name \_\_\_\_\_ Dr \_\_\_\_\_ Mr \_\_\_\_\_ Ms \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

Affiliation \_\_\_\_\_ Position \_\_\_\_\_

Address \_\_\_\_\_ ZIP \_\_\_\_\_

E-mail address \_\_\_\_\_

Indicate the method by which you would like to receive the Newsletter: mail \_\_\_\_\_ e-mail/web \_\_\_\_\_ both \_\_\_\_\_

Student (\$5) \_\_\_\_\_ Basic (\$10-\$24) \_\_\_\_\_ Patron (\$25-\$99) \_\_\_\_\_ Corporate Sustaining (\$100- ) \_\_\_\_\_

Make checks payable to MMS and mail to our Treasurer:

Bede Willenbring, MMS Treasurer, 4763 Decatur Ave. North, New Hope, MN 55428-4402

or pay by credit card by going to the MMS web site at: [www.MNmicroscopy.org](http://www.MNmicroscopy.org)

Check here \_\_\_\_\_ if you do NOT want your name and address to appear in the Society directory.

Are you an MSA member? \_\_\_\_\_ MAS Member? \_\_\_\_\_ Other Professional groups? \_\_\_\_\_

Area of interest: Bioscience \_\_\_\_\_ Materials Science \_\_\_\_\_ Light \_\_\_\_\_ SEM \_\_\_\_\_ TEM \_\_\_\_\_ X-ray \_\_\_\_\_

**Minnesota Microscopy Society**  
Peter McSwiggen, MMS Editor  
McSwiggen & Associates  
2855 Anthony Lane South, Ste B1  
St. Anthony, MN 55418

Forwarding and Address  
Service Requested

**March 16, 2006**

***MinnTS***