

Newsletter

Of the

New York Microscopical Society

1 Prospect Village Plaza (66F Mt. Prospect Avenue) Clifton, New Jersey 07013-1918 GPS: Latitude 40.8648N, Longitude 74.1540W



September 2015

Editor: (201) 791-9826

Volume 9 (29) Number7

Meeting Notice – Sunday, September 27, 2015 Program to be announced

Doors will be open at Noon. Refreshments will be available. For additional information, please contact Mel Pollinger (pollingmel@optonline.net), or call (201)791-9826, or by cell: (201) 314-1354 (meeting day only)

Some Images from the home and Gardens of Jan & Wiebke Hinsch this Summer. By Mel Pollinger



A Not-For-Profit Educational Organization, Page 1 of 4

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Manager, 2013-2016 Peter Diaczuk peter.diaczuk@gmail.com; (212)237-8896, Past President

For additional information contact the Editor: Mel Pollinger at (201) 791-9826, or pollingmel@optonline.net

Dues and Addresses Please remember to mail in your Dues to: Mel Pollinger Treasurer, NYMS 18-04 Hillery St. Fair Lawn, NJ 07410-5207

Junior (under age 18) \$10 Annually <u>Regular</u> \$30 <u>Student (age 18 or above) \$20</u> Annually <u>Supporting</u> \$60 Annually <u>Corporate</u> (includes one advertisement in NYMS News) \$175 Annually <u>Life</u> \$300 (payable within the year) To avoid missing notices: Notify Mel Pollinger if you have changed your address, phone or email.

Awards Given by the New York Microscopical <u>Society</u>

The New York

microscopical Society takes great pleasure in recognizing and rewarding individuals who have contributed to either the activities of the society or to furthering microscopy. These awards are described in our website and in a pdf file for our email newsletter recipients. All members are eligible to nominate individuals for these various awards, and are encouraged to do so. John A. Reffner, Awards Committee Chairperson

Awards Committee Chair: John A. Reffner Members Jan Hinsch Peter Diaczuk Angela Klaus John R. Reffner





Mel Pollinger, Editor 18-04 Hillery St. Fair Lawn, NJ 07410-5207



The Mission of the New York

Microscopical Society is the promotion of theoretical and applied microscopy and the promotion of education and interest in all phases of microscopy.

Alternate Meeting Notifications

Please note that due to time constraints in publishing, some meeting notices may be available by calling Mel Pollinger at 201-791-9826, or by visiting the NYMS website, or emailing: pollingmel@optonline.net

Please remember to pay your dues

Buy and Read a Good Book on Microscopy.

From the Library:

The NYMS Library contains over 3,700 cataloged volumes, among these is a full set of McCrone's Particle Atlas and copies of Microbe Hunter Magazine.

Come on down and read!

Contact: Mel Pollinger (201) 791-9826, or email Mel at pollingmel@optonline.net



NYMS Yearbook 1877-1956

Be A Volunteer – There's *Always* Something to do and see at NYMS.

If you wish to contribute some of your time to NYMS, please contact me at (201) 791-9826 or by email at pollingmel@optonline.net

Coming Up in 2015

EAS Live Webinars for 2015:

Please search on the below indicated web address and review the EAS Website below for information regarding the upcoming Live Webinars in

2015.

http://easinc.org/wordpress/?page_id=2974

McCrone Courses September & October 2015:

Call or write for course information: McCrone Research Institute: 2820 S. Michigan Avenue, Chicago IL 60616-3230 Phone: 312-842-7100

Eastern Analytical Symposium

November 16-18, 2015 Somerset, New Jersey. For more information: Contact the Exposition Director, Sheree R. Gold: easinfo@aol.com 610-742-4981 (cell)

Marine Biology Link to check out. http://research.mblwhoilibrary.org/works

Tardigrada News From email received from Jean Portell & Jay Holmes

I just posted the following message on the blog of the International Society of Tardigrade Hunters (tardigrade hunters.weebly.com/isth-blog/tardigrade-ofthe-week-milnesium).

Maybe someone will contact NYMS to find out when the next Water Bear Hunt will be held, then linger to learn more about the Society, and the microscopes it makes available for use at the HQ, and the kinds of 'scopes it offers for purchase.

Here's what I added to the ISTH Blog (if they accept this entry):

Your members might be interested to know that the New York Microscopical Society began holding "Water Bear Hunts" in the 1990s, first for NYMS members and their young relatives, then expanding to hold a few of these events at the New York Hall of Science (before its major renovation), later several times in Central Park (thanks to the Central Park Conservancy), and even once at the Mohonk Mountain House.

The Society's awareness and appreciation of tardigrades grew vigorously when Dr. William R. Miller became the go-to expert at some of our early Water Bear Hunts. He also presented a scientific talk about these animals at a meeting of NYMS held at the American Museum of Natural History. We are indebted to Dr. Miller for his generous assistance.

NYMS organizes these events whenever several microscope-savvy members and other volunteers are willing to commit, a few months in advance, to gather on the same date.

http://tardigradehunters.weebly.com/isth-blog/tardigradeof-the-week-milnesium

http://www.nytimes.com/2015/09/08/science/thetardigrade-water-

<u>bear.html?action=click&contentCollection=science®io</u> <u>n=rank&module=package&version=highlights&contentPla</u> <u>cement=1&pgtype=sectionfront&_r=1</u>

The NYMS link in the paragraph His family thought his obsession was "strange," he said, but the work, which he completed with the help of <u>Dr. William Miller</u>, a tardigrade expert at Baker University in Kansas, <u>was published in The [Journal] Newsletter of the New York Microscopical Society</u>: Tardigrades-of-North-America-New-Jersey-Survey-Michael-Shaw published in the NYMS extended Newsletter-OCT2013.

Visitors Always Welcome to NYMS

Although most of our lecture meetings, workshops and classes are held in the NYMS Clifton facility on the last Sunday of the month, the building may be opened for special purposes at other times, by appointment only. For such an appointment, please contact Mel Pollinger by phone at (201) 791-9826, M-F noon to 9:30pm, or by email at pollingmel@optonline.net.

From The Editor...

if you have an email address: Getting the newsletter by email means you can receive an <u>extended pdf version</u> that cannot be sent by "snail mail." Even if you only continue your USPS delivery of the newsletter, NYMS needs your email address for reporting priority events and special news. Being able to contact you quickly by email means better communication between you & NYMS= Mel

Need to use a Microscope?

The various microscopes that are presently set up on the main floor of the New York Microscopical Society building in Clifton, N.J. are there for the use of its members.

From Gary Mayer: In need of parts for older Olympus Microscopes? Contact J.C. Ricky in Ohio at (740) 862-9252

Microscope Cleaning Kit

A complete set of tools and accessories to keep your microscope in optimum operating condition. The kit is put together by our previous Curator/Educational Chairman, Don O'Leary, and available directly from NYMS, while they last, for only \$35.00 plus shipping & handling, or may be purchased at a meeting. Call or email Mel Pollinger for details (see page two for contact numbers).

NYMS Meeting Dates

Most meetings of NYMS are usually held in Clifton on the last Sunday of the months of Jan., Feb., Mar., Apr., May, Sep., Oct. Exceptions will be noted in the Newsletter.

NYMS microscope slide collections are available for study at meetings and by appointment.

Please note that our website is presently under repair.

Answer to Mystery Photo for Summer 2015



Seed pod of Poppy flower. Imaged by Mel Pollinger at a NYMS picnic in Montclair, NJ. Did you guess correctly?

Mystery Photo for September 2015



Want to take a guess? Send it to me by email or call me: pollingmel@optonline.net, (201) 791-9826

Additional Historical NYMS Supplements Email Newsletter recipients will also be getting copies of NYMS Newsletter pdf back-Issues from 2007. Copies of older newsletters will be sent as I convert them.

Attention NYMS Members

Got something to sell? Article to publish? Pictures for the newsletter? Looking to buy something? Want to use the library? Want to use a NYMS microscope? For any of the above, contact the Editor, Mel Pollinger.





Supporting Member

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N.Y.M.S. NEWSLETTER



September 2015

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Green Hydra (*Hydra viridis*). Body wall of 2 layers: outer cells clear, inner cells contain a symbiotic unicellular algae (*Chlorella*) which produce sugars that help feed the hydra. Anterior tentacles capable of long extension. *A.W. Thomas photo.*

NEXT STEPS IN LENS MAKING: SHARING THE FUN

Jay Holmes jholmes@igc.org



Over the past few years I have been on a journey of microscope making, it has been a slow journey, but has included many enjoyable meanders through tinkering, optics, motor recycling, mechanics, simple machine engineering, design, history, implementing treadle and muscle powered solutions and learning how to use a lathe and a mill. This past Spring, after sharing that experience at a New York Microscopical Society meeting the discussion moved on to ways of sharing this fun, I started working on ideas of bringing others along on the journey.



I had a chance to visit a New York City classroom where the students were exploring the world of optics. They had constructed their own "Galileioscopes" and had followed Professor Patrick Keeling's procedure for making a Leeuwenhoek style bead lens microscope (http://www3.botany.ubc.ca/keeling/resomicr1.html). I visited to share my single lens Ellis Aquatic style microscope and some of the tools that I used to make it. Some of the students expressed an interest in grinding their own lens through such a process. This sent me on a new design adventure to make some of the tools a little more user friendly. This would involve considerations around time, ease of use, and reduction of equipment noise. This is the start of sharing that process with you. It will be a story about ideas and experiments, sharing and I hope dialog.

This first installment is from a collection of posts to my blog. I have tried to add a bit more detail here. I will start with the construction of a new electric lens grinding machine.

MOTOR CITY (JULY 3, 2015)

It has been a long time since I have shared any of my work.... for my own scope, I have been working on a lower magnification lens using treadle power. More on that soon. I have also been thinking about working with young lens makers. I think I have one! That will start soon. In preparation for that I have been thinking about making/ hacking this thing. I have been using treadle power for my own lens recently, but that is a little bulky to transport and a bit slow. I am thinking about "up cycling" some electric motors for this project. I have recently scavenged two pencil sharpener motors, but they seem to be pretty high rpm. I was brainstorming some gears or pulleys to step the speed down. Then tonight, in our apartment stairwell, next to the trash... Ok, IN the trash, a "box fan" with 2 broken blades out of 5. I thought... "Broken blades... that probably means the motor is still good!" And that little dial... 3 speeds! Might be the perfect motor for lens making!

I dragged it into the apartment, popped out the leatherman and extracted the important parts!





Of course with the usual helpers. Max the cat helping this time.



Very nice motor! It had 4 "legs" with rubber isolation pads and a great spindle, 3/8 inch steel with a facet!



And 3 speeds! That dial has to go, I will try to machine something nice. I plugged it in and gave the dial a twist and... an amazing silent spinning! The motor was in great shape, running smoothly. I just need to add a nice box and we will be ready to go!



PROGRESS ON FAN MOTOR LENS LAP (JULY 26, 2015)

The extracted fan motor has become a multi speed lens lap drive!



The box is cherry, finished with tung oil (Old Masters 100% tung oil). Tung oil is water proof to some degree, in case things get messy. The process of grinding these small microscope lenses usually involves very small amounts of water, usually none beyond the lap, so the wood should not suffer much. I haven't gotten to making a cool knob yet, but some day.

The spindle is brass and tapered at 2 degrees off vertical. This helps center things up, this idea came from Albert G. Ingalls, Amateur Telescope Making Volume 3, Willmann-Bell, Inc., 1996, (http://www.willbell.com/tm/tm7. htm) page 190, the section on making eyepieces. The tapper helps center the lap and reduce wobble. I also added two set screws to hold the tapered brass spindle onto the motor spindle. The top of the box is some galvanized steel held on with some brass wood screws, this was mostly a choice due to space issues. I needed something thin for the lid due to the dimensions of the wood I had and the desire to maximize the length of motor spindle sticking out of the box. It is durable and has an okay look.



The taper is achieved with a compound slide. There are other ways, but the compound slide is a nice solution. The first step was to set up the machine in "vertical Milling" arrangement, and drill the two set screw holes in a piece of brass rod. Then set up in lathe mode to face and true the piece of brass. The lathe cutting tool in this case is working on the back side of the piece, and the cutting tool is held in a holder that slides and rotates on a plate with degree marks. You simply rotate the tool holder to the 2 degree mark and then control the slide with the small hand wheel on the slide, working down to the desired diameter. I gradually drilled out and then bored out the spindle hole to fit the motor spindle, once that was done I tapped the holes with a hand tap.





I have made another aluminum lens lap holder (upper right of this image) that fits onto this tapered spindle and receives the lens laps which are made out of cast iron. The 5 metal rods in the foreground will have small bits of glass attached to them using sealing wax (the red stuff in the spoon). These pieces of glass will be ground to a lens shape using one of the laps.





The lens laps are made by facing and truing a 1 inch cast iron bar down to diameter the diameter of the receiving end of the lens lap holder. Then cutting off a bunch of disks about 6 mm thick. Then converting the lathe to milling setup, and using a ball nose mill to make a hole that is just shy of a 1/2 sphere deep. I have a set of three different radii now, 3/32, 1/8 and 3/16 using 3/16, 1/4 and 3/8 inch diameter ball nose mills respectively. I started working with a student, after some observing through some lenses she chose to make a higher magnification lens, so we will be using the 3/32 inch radius lap. These metal laps will be used for grinding glass blanks to shape and hardwood laps will be made for the polishing phase.

This week will be our second meeting. We will be shaping the blank into a small cylinder, attaching it to the metal rod, and starting the grinding process.

Yesterday I was on a roll. After making good progress on the lens grinding laps I started cutting a block of maple for the polishing laps.



I cut out a little block, just bigger than the lap diameter.





I planed it off a little with my Dad's old Stanley Handyman plane. Chucked it up and turned it down in the adjustable 4 jaw chuck, until I had the proper size for the lens lap holder slid over the end. In working with wood I used hand held turning tools and a t-rest, the flat brushed steel piece seen in the right foreground of the photo at the right.





Using the thin bladed cut-off tool, wooden disks about 6 mm thick are cut from the wooden cylinder.



And there we are, 4 wooden nickels! Well, maybe they are closer to quarters. Ready for the ball nose mills now and those little spherical dimples. Getting quite a collection of lens laps! Here is most of the collection used to date. The ones in the back left were used on blender motors, the first pair was aluminum, the second pair was cast iron. They require 8 set screw holes to hold onto the blender spindle. Sandro Di Filippo (author at the Home Shop Machinist: http://www.homeshopmachinist.net/)made these for me, that was a lot of work tapping all those holes. The rest were made on my Sherline lathe (http://www.sherline.com/), they set down into the large aluminum lap holder, and do not require any set screws! The tight fit in the lap holder and the downward pressure of pushing the glass into the lap keeps everything in place. The lower rpm of the treadle and new motor setups helps keep things under control as well.



Started working on a lens with a young New Yorker, and she is flying along!



Then she got to work with drill, grinder wheel, vise and of course, safety glasses!

The squarish chip was clamped in the vise and the corners rounded off. Then the disk was ground down until the round blank just fits into the hole in the lens lap.

We got together last Thursday and in a small white envelope, she brought in two chips of glass found in cracks in the sidewalks of Washington Heights, NYC. We chose one and snapped off a bit to get it closer to the size we needed (tools: glass cutter, safety glasses and pliers).







LENS LAPS: RADII OF CURVATURE ACTUAL SIZE

3/32 inch

1/8 inch

3/16 inch







We melted the sealing wax over a candle flame (which was a little slow, but worked). Dipping the end of a metal rod into the sealing wax and then tapping it on the glass blank, a little adjusting by finger as the wax hardens... And voila! Ready for shaping in the lap! (This metal rod is a piece of one of those folding laundry/grocery carts that are part of most city apartment dweller's lives, they often drop parts here and there on the street.)





Using the low speed on the fan motor, things are running smoothly and quietly!





You dip the glass into water, and then into the grit (220), then into the lap.



After a bit of back and forth between the water, grit and lap (when it started sounding gritty and grinding, we dipped it in some water, and skip the grit. You don't want too much grit). We were making great progress. In 1 1/4 hours we had set up, shaped the blank, attached it, ground down one side almost to shape (you can see the square corners rounding in the photo to the left, and that flat top of the glass blank getting smaller)... Then, all of a sudden, silence... Apparently my box did not have enough ventilation... The motor has a temperature sensitive circuit that trips/ burns out at 70 degrees C... We hit that.

So, I had some choices:

Go back to the loud blender motor, which would require either going back to the earlier laps or fitting the new lap design onto the blender.

Getting another fan motor and fixing the ventilation.

Option 1 would require making or reworking the lap. The original lap was aluminum and I think the soft aluminum would have to be reshaped. I opted for plan 2 because I liked this quieter motor and liked the idea of the scrounged motor aspect... But I would have to buy a fan this time... no time to wait for one to turn up in the trash. (The Fall will probably be a good time to keep an eye out for fans since many apartment dwellers find space more valuable than a fan. I will have to keep an eye out to expand my stock of lens making machines for a class set.)

I found the same fan at a nearby "99 cent" store, and a little CPU fan (I bought one, although I know I have a couple that I have scrounged from old computers, but I can't find them! Maybe I tossed them in a cleaning fit.) and I used an old 12 volt DC power supply I had kicking around.



Some drilling, coping saw and rasp work and... A nice snug fit! I connected the red wire to the + and the black wire to the – on the power supply. This fan is drawing 0.25 amps off the 12 volt 1 amp power supply, and it is moving some good air volume! If this works out well, I will neaten up the wiring. I will keep a closer eye on the temperature this time!

We are ready to continue turning a piece of broken bottle into a portal for observing another world!



Main Identity

From: To:

"Eastern Analytical Symposium" <newsletter@eas.org> <pollingmel@optonline.net>

Sent: Monday, August 03, 2015 10:23 AM

Subject: Announcing the Short Course Program at EAS!

201 Ar Syr & E	5 Eastern nalytical mposium xposition	CAL INNOVATION FROM TOP TO BUSINESS	Garden State Exhibit Center Somerset, NJ November 16–18, 2015
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SHORT COURSES - A Great Training Opportunity!

Knowledge is the key to success in the laboratory enterprise, and the slate of EAS short courses provides real-world, tangible knowledge on a variety of topics. The instructors are experts in their specialties, and they communicate the important, and sometimes esoteric, nature of techniques and problems encountered in everyday laboratory work. Check out the 36 offerings this year, including a wide variety of courses on GC, MS, HPLC and vibrational spectroscopy, as well as safety and compliance. You are sure to find topics that will provide essential knowledge and enhance your career in analysis.

EAS invites you to take part in the courses listed below. Sign up to guarantee your spot in one of our half-, one- or two-day courses. **Register before Oct. 15th** to receive discounted prices on registration and short courses.

Click on the course title to link to course descriptions, who should attend and instructor bios.

Two-Day Short Courses

Code	~ 2-Day Courses ~ Sun., Nov. 15 - Mon., Nov. 16 8:30am - 5:00pm (Holiday Inn)	Instructor(s)
E15-01	Practical Gas Chromatography	Dr. Eugene F. Barry, University of Mass-Lowell Dr. Thomas Brettell, Cedar Crest College
E15-02	Troubleshooting Chromatographic Systems	Dr. Merlin K.L. Bicking, ACCT, Inc. Dr. Douglas E. Raynie, South Dakota State University
E15-03	Chemometrics Without Equations I & II (combined course)	Dr. Donald Dahlberg, Lebanon Valley College Dr. Neal Gallagher, Eigenvector Research
E15-06	Physical Characterization and Methods of Analysis of Pharmaceutical Solids I & II: Essential Knowledge and Advanced Applications	Dr. Xiaoming (Sean) Chen, Shionogi Inc. Dr. Steve Byrn, Purdue University
Code	~ 2-Day Courses ~ Mon Nov 16 - Tues Nov 17	Instructor(s)

Code	~ 2-Day Courses ~ Tues., Nov. 17 - Wed., Nov. 18 9:20am - 5:00nm (Holidov Inn)	Instructor(s)
E15-14	LC/MS: Theory, Instruments, and Applications	Dr. Ragu Ramanathan, Pfizer
Code	~ 2-Day Courses ~ Mon., Nov. 16 - Tues., Nov. 17 8:30am - 5:00pm (Holiday Inn)	Instructor(s)

	8:30am - 5:00pm (Holiday Inn)	
E15-21	How to Develop Validated HPLC Methods: Rational Design with Practical Statistics and Troubleshooting	Dr. Brian A. Bidlingmeyer, Agilent Technologies Dr. Stanley N. Deming, Statistical Designs

One-Day Short Courses

Code	~ One-Day Courses ~ Sunday, November 15 8:30am - 5:00pm (Holiday Inn)	Instructor(s)
E15-04	Introduction to Chemometrics Without Equations I	Dr. Donald Dahlberg, Lebanon Valley College Dr. Neal Gallagher, Eigenvector Research
E15-07	Physical Characterization and Methods of Analysis of Pharmaceutical Solids I: Essential Knowledge	Dr. Xiaoming (Sean) Chen, Shionogi Inc. Dr. Steve Byrn, Purdue University
E15-09	Impurities In Pharmaceuticals - A Survey Course	Dr. Bernard Olsen, Olsen Pharmaceutical Consulting

E15-10	Keeping Current with GMP and Laboratory Controls in Generic Industry	Dr. Anthony DeStefano, YourEncore Ms. Kim Huynh-Ba, Pharmalytik
E15-11	LC-MS Method Development for Small Molecule Pharmaceuticals	Dr. Perry Wang, LC-MS Technical Expert
E15-12	How to Create a more Effective Lab Safety Program	Dr. James Kaufman, Lab Safety Institute
E15-13	Handheld Vibrational Spectrometers: State-of-the Art Instrumentation and Novel Applications	Dr. Heinz Siesler, University of Duisburg-Essen

Code	~ One-Day Courses ~ Monday, November 16 8:30am - 5:00pm (Holiday Inn)	Instructor(s)
E15-05	Intermediate Chemometrics Without Equations II	Dr. Donald Dahlberg, Lebanon Valley College Dr. Neil Gallagher, Eigenvector Research
E15-08	Physical Characterization and Methods of Analysis of Pharmaceutical Solids II: Advanced Applications	Dr. Xiaoming (Sean) Chen, Shionogi Inc. Dr. Steve Byrn, Purdue University
E15-15	Polymers: An Introduction and Characterization Techniques	Dr. Diep Nguyen, Illinois Institute of Technology
E15-16	Developing, Validating and Troubleshooting Dissolution Methods	Mr. Gregory Martin, Complectors Consulting
E15-17	Introduction to GLP Regulations and Bioanalytical Method Validation by LC-MS/MS	Dr. Perry Wang, LC-MS Technical Expert
E15-18	Advanced HPLC/UHPLC Part I & Part II	Dr. Michael W. Dong, MWD Consulting

Code	~ One-Day Courses ~ Tuesday, November 17 8:30am - 5:00pm (Holiday Inn)	Instructor(s)
E15-22	Getting the most from GC and GC/MS	Dr. Gregory Slack, Clarkson University Dr. Nicholas Snow, Seton Hall University
E15-23	Introduction to Vibrational Spectroscopy for Real Time Analysis	Dr. Peter J. Larkin, Bristol-Myers Squibb Dr. John M. Wasylyk, Bristol-Myers Squibb
E15-24	Sample Preparation: The Chemistry Behind the Techniques	Dr. Merlin K.L. Bicking, ACCTA, Inc. Dr. Douglas E. Raynie, South Dakota State University
E15-25	The Chemistry of Drug Degradation	Dr. Christopher Foti, Pfizer Dr. Gregory Sluggett, Pfizer Dr. Todd Zelesky, Pfizer
E15-26	Drug Quality Fundamentals I & II (combined half-day courses)	Dr. Michael W. Dong, MWD Consulting
E15-36	Quality-by-Design (QbD) Fundamentals for Analytical Chemists: A New Paradigm for the Analytical Laboratory	Dr. Zenaida Otero Gephardt, Rowan University

Code	~ One-Day Courses ~ Wednesday, November 18 8:30am - 5:00pm (Holiday Inn)	Instructor(s)
E15-29	Atomic Spectrometry: Applications of Elemental Analysis in the Pharmaceutical Industry	Dr. Timothy L. Shelbourn, Eli Lilly
E15-30	Interpretation of Mass Spectra with Practical Solutions to Problems	Dr. Mike Lee, Milestone Development
E15-31	Therapeutic Peptide and Protein Bioanalysis by LC-MS/MS	Dr. Faye Vazvaei, Roche Dr. Jianing Zeng, Bristol-Myers Squibb Dr. Jun Qu, SUNY-Buffalo Dr. Yan Zhang, Bristol-Myers Squibb
E15-32	Conducting Effective Investigations of Out of Specification and Atypical Laboratory Results: Using Root Cause Analysis and CAPA to Close Them Quickly and Keep Them from Coming Back	Mr. Gregory Martin, Complectors Consulting
E15-33	Practical Guide to Performing HPLC and UHPLC Experiments in Reversed-Phase Mode	Dr. Merlin K. L. Bicking, ACCTA, Inc. Dr. Richard A. Henry, Consultant

Half-Day Short Courses

Code	~ Half-Day Courses ~ Monday, November 16 8:30am - 12:00pm (Holiday Inn)	Instructor(s)
E15-19	Advanced HPLC/UHPLC I: Concepts and Instruments	Dr. Michael W. Dong, MWD Consulting
	~ Half-Day Courses ~	

Code	Monday, November 16 1:00- 4:30pm (Holiday Inn)	Instructor(s)
E15-20	Advanced HPLC/UHPLC II: Columns and Practices	Dr. Michael W. Dong, MWD Consulting

Code	~ Half-Day Courses ~ Tuesday, November 17 8:30am - 12:00pm (Holiday Inn)	Instructor(s)
E15-27	Drug Quality Fundamentals Part 1: Introduction to Drug Discovery and Development Processes	Dr. Michael W. Dong, MWD Consulting

Code	~ Half-Day Courses ~ Tuesday, November 17 1:00- 4:30pm (Holiday Inn)	Instructor(s)
E15-28	Drug Quality Fundamentals Part 2: Quality Control of Small Molecule Drugs and Recombinant Biologics	Dr. Michael W. Dong, MWD Consulting

Code	~ Half-Day Courses ~ Wednesday, November 18 8:30am - 12:00pm (Holiday Inn)	Instructor(s)
E15-34	HPLC Method Development Made Easy	Dr. Michael W. Dong, MWD Consulting
Codo	~ Half-Day Courses ~	

Code	Wednesday, November 18 1:00- 4:30pm (Holiday Inn)	Instructor(s)
E15-25	Making the Transition to GC-MS, GC-MS-MS and GCxGC-MS	Dr. Nicholas Snow, Seton Hall University Dr. Gregory Slack, Clarkson University

EAS Executive Secretary PO Box 185 Spring Lake, NJ 07762 phone 732-449-2280 fax 732-612-1123 email: askEAS@eas.org

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From:	"Eastern Analytical Symposium & Exposition" <newsletter@eas.org></newsletter@eas.org>
To:	<pollingmel@optonline.net></pollingmel@optonline.net>
Sent:	Wednesday, July 15, 2015 12:10 PM
Subject:	Registration is Now Open

EAS Registration is now open! Register before Oct. 15th for discounted pricing!



On-line Registration is now Open!

Register before **Oct. 15th** to take advantage of discounted pricing for full conferee and short course prices!

You can now register for EAS on-line or download a form to register by mail/fax. Registration is available on-line or on-site the days of the conference (Nov. 16-18) at the Garden State Exhibit Center in Somerset, NJ.

> Reminders: If you plan on taking a short course or workshop, remember to register as a Full Conferee.

> > **Register Now**

Short Courses

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Nobel Laureate Prof. Kurt Wüthrich will be the

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EAS has blocks of rooms reserved at two hotels: The Doubletree Hotel Somerset and the Holiday Inn Somerset. The Doubletree is connected to the Garden State Exhibit Center and all the Technical Sessions are held here. The Holiday Inn is located across the street and EAS offers free shuttle service.

In order to obtain a reservation at either hotel, you may use the web site or use the toll-free phone number provided for each facility; be sure to use the appropriate **Group Code** to receive the discounted rate. You will need to provide a credit card number in order to guarantee your room. Please carefully read the information provided at each hotel's reservation website so that you are aware of any relevant cancellation penalties and dates. When you make your reservation, you will be provided with a confirmation; please retain it in case you need to modify your reservation.

Doubletree Hotel Somerset



200 Atrium Drive Somerset, NJ 08873 732-469-2600 Toll-free number: 1-877-874-7124 or 1-800-222-8733 (you must mention **Group Code: EAS**)

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195 Davidson Avenue Somerset, NJ 08873 www.hisomersetnj.com Toll-free number: 1-800-HOLIDAY or direct: 1-732-356-1700

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New York Microscopical Society Items For Sale 08-Sept-2015

N.Y.M.S. Microscope Covers

ltem #	Size	Member Price	List Price
MT-003	Small Microscope or Stereo, 15"W x 17"H	\$18.00	\$20.00
MT-004	Lab Microscope or Large Stereo, 20"W x 18"H	\$23.00	\$25.00
MT-005	Large Lab Scope, 22''W x 21''H	\$28.00	\$30.00
MT-009	Large Lab Scope with Camera, 9"W x 19"Deep x 23"H	\$31.00	\$33.00
MT-010	Universal Scope with Camera, 11"W x 25"Deep x 26"H	\$36.00	\$40.00
MT-012	X-large Scope, 20"W x 28"Deep x 32"H	\$45.00	\$50.00
	N.Y.M.S. Microscopes (see below for ir	nages)	
185	Monocular Dissecting Microscope	\$85.00	\$99.00
131	H.S. Student Microscope	\$190.00	\$245.00
131-FLU	H.S. Student Microscope (Fluorescent)	\$200.00	\$255.00
125-LED	H.S. Student Microscope (LED)	\$240.00	\$309.00

Other Items

NYMS Glossary of Microscopical Terms	\$30.00	\$35.00
NYMS Patch	\$5.00	\$7.00
Microscope Cleaning Kit*	\$40.00	\$45.00
NYMS Lapel Pin	\$10.00	\$15.00
NYMS Engraved Pen	\$7.00	\$10.00

*When available



Model 131: Tungsten Model 131-FLU: Fluorescent





Model 125-LED Cordless

Model 185: 20x



Directions to NYMS Headquarters

One Prospect Village Plaza (66F Mount Prospect Avenue) Clifton, NJ 07013 GPS: Intersection of Colfax & Mt. Prospect: Latitude 40.8656 N, Longitude 74.1531W, GPS: Our building: Latitude 40.8648 N, Longitude 74.1540 W

From George Washington Bridge:

Take Interstate Route 80 west to Exit 57A, Route 19 South. Take Route 19 to Broad Street and continue two lights to Van Houten Avenue. Turn Left. Go to second light, Mount Prospect Avenue and turn left. Building 66F is on the left side , one and a half blocks from Van Houton.

From Lincoln Tunnel:

Follow exit road to NJ route three west. Continue to Bloomfield Avenue exit. Turn right to Circle and go three quarters to Allwood Road West. Mount Prospect Avenue is a few blocks on the right (a small street) Turn right and go to first light (Van Houton) continue. Building 66F is on the left side , one and a half blocks from Van Houton.

From North:

Take Garden state Parkway South to Route 46 Clifton Exit. On 46 Make second exit to Van Houton Ave. Continue to third light Mount Prospect Avenue and turn left. Building 66F is on the left side , one and a half blocks from Van Houten.

From Route 46 coming from west:

Take Broad Street Exit in Clifton and follow Directions above from GW Bridge.

<u>From route 46 coming from East:</u> Take Paulson Avenue Exit in Clifton and follow to Second light, Clifton Ave turn right. Go to next light, Colfax, turn left, go three blocks and turn right on Mount Prospect Ave.. Building 66F is half block on right.

Public transportation from NY:

Take NJ Transit train from Penn Station to Secaucus Transfer Station. Change trains to Bergen Line to Clifton (call NJ Transit for schedules). From Clifton Station cross under tracks to first street and go left one block to Mount Prospect Street, turn right and Building 66F is one half block on Right.

If you plan to come by bus or train, please copy the links below into your browser:

http://www.njtransit.com/sf/sf_servlet.srv?hdnPageAction=TripPlannerItineraryTo http://www.njtransit.com/sf/sf_servlet.srv?hdnPageAction=BusSchedulesP2PTo http://www.njtransit.com/sf/sf_servlet.srv?hdnPageAction=TrainTo



Bryazoan (living) from Ramapo Lake, Oakland, New Jersey, 20x (20100607DSC0742a6x4x200) by Mel Pollinger



Raindrop on evergreen leaf bud (P6230288) by Jeff Glover