



# MCF RETENTION TIMES

Official Newsletter of MCF

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Visit us on the MCF Website: [www.minnchrom.org](http://www.minnchrom.org)

## PRESIDENT'S CORNER

*Ron Schoonmaker, MCF President*

I find it ironic that the MCF does such a good job at bringing professionals together from the field of separation science. While we understand the advantages of well-separated, symmetrical, and fast-moving individual peaks moving away from a crowded group, MCF finds that conglomerations of diverse members taking time to group together and dwell on new information helps us all reach new phases of technical achievement.

With this in mind, I look forward to another great year of MCF programming for its members. With the kids back in school, please also consider for yourself one of the outstanding short courses offered by the Education Committee. The committee has once again organized a substantial set of relevant and current courses offered at very reasonable prices.

I also look forward to the quarterly meetings to be organized by our Directors. These meetings offer members the chance to network and socialize with others in their field, hear interesting technical talks, and enjoy refreshments. Please watch your e-mail inbox and the MCF website for the announcements of meetings over the next few quarters.

Finally, I am looking forward to our outreach programs spearheaded by Neil Larson, External Activities Chair. In this position, Neil will be promoting MCF to college undergraduate and graduate students soon entering the workforce. Please let Neil or myself know if you have an interest in joining him in this endeavor.

Now, let's run the seasonal sequence of MCF events! (I don't want to dwell on this column's capacity for chromatographic puns, but I hope it was 'k to include them all.)

### **ATTENTION MEDTRONIC MEMBERS**

*We've lost contact with you!*

*To stay informed of the latest events, please send your personal email address to:*

**MinnChrom@gmail.com**

## DID YOU KNOW?

As an MCF member, you may post job wanted ads at no cost. Organizations may advertise a business or job opening for a nominal fee. Please contact Joanne Costello for more information about event and job postings in the newsletter and website ([jcostello@mmm.com](mailto:jcostello@mmm.com) or 651-736-8441).

## SYMPOSIUM CORNER

*LeeAnn Higgins, MCF Symposium Committee Chair*

*Symposium Committee Members: Peter Johnson (Program); Steve Albrecht (Vendors/Exhibits); Jan Jopke (Meeting Coordination); Nate Otte (Publicity/Facilities); Sandy McDonald (Program); Lori McNamara (Publicity/Recruiting)*

### **2009 MCF SYMPOSIUM RECAP**

Minnesota Chromatography Forum held its 30th Annual Spring Symposium from May 12 – 14, 2009 at the Earle Brown Heritage Center Minneapolis, MN. Approximately 260 attendees gathered for an educational event filled with networking, vendor interaction and presentations- both oral and poster.

Highlights on Tuesday and Wednesday morning included the annual short courses, including: 1) Advanced GC Troubleshooting by Daron Decker, 2) Mass Spec Interpretation by Fred Feyerherm and 3) Troubleshooting HPLC Systems, by John Dolan.

Wednesday afternoon features included Vendor Exhibits and a late afternoon Reception. Two consecutive, informal open-discussion sessions about HPLC and GC techniques, including troubleshooting and method development were held on Wednesday. We thank John Dolan, Dan Marchand, Richard Henry, Daron Decker and Fred Feyerherm for help with and offers to moderate, lead discussions and provide helpful insight to questions. We also thank participants in the audience who helped to carry on the discussions. Nine vendor presentations were held on Wednesday and seven posters were presented (3 from academic researchers, 4 from vendors) on topics ranging from separations to extractions to quantitation.

The keynote address on Thursday from Dr. Larry Bowers of the United States Anti-Doping Agency, titled "Chromatography in the Courtroom: Proving Drug Abuse Cases in Sport," launched the technical program. The Palmer Award and Undergraduate award recipients were announced: Congratulations to the recipients!! The rest of the technical program featured presentations from four invited focus speakers: Dr. John Dolan (LC Resources), Dr. Adrian Hegeman (University of Minnesota), Dr. Brian Rorhback (Infometrix), Professor Richard Henry (Penn State University), plus 19 technical mini-presentations from local scientists. The recipient of the 2008 MCF Undergraduate Awardee, Andrew Korte from University of St. Thomas, St. Paul, MN, gave a thorough presentation titled: "Environmental Photoproducts of Fluoroquinolone Antibacterial Compounds." The academic presence at the MCF Symposium helps to promote the educational goal of MCF. Please continue to encourage young scientists to participate - award and "Symposium Corner" continued on Page 2

**SYMPOSIUM CORNER** *Continued from Page 1*  
presentation opportunities await!

A group of the Founding MCF Members attended the Symposium for the 30 Year milestone! The longevity of the MCF organization and related events demonstrate the dedication of local chromatographers, other scientists and vendors to: 1) the LC and GC separation technologies applied at the workplace; 2) collaborations and networking; 3) continuing education. Make your commitment to keep MCF going by taking the opportunities to participate in upcoming events throughout the year and set a goal to tell three new people about MCF between now and Symposium 2010! See you and your friends during May 11-13th, 2010.

We appreciate the feedback about MCF in the survey forms. Please contact the MCF Symposium committee if you have ideas or suggestions for changes to the Symposium program and didn't have the opportunity to hand in a survey. We thank everyone for attending and for helping to make the program possible, and look forward to seeing everyone again next year in 2010!

A total of 33 VENDORS displayed their products in the Exhibitor's Room. A great hand of applause for the dedicated efforts and contributions from the vendors, who help to make the Symposium successful and possible!

**Special Thank You  
to the Vendors!**

*Aerotek Scientific, Agilent Technologies, Analytical Instruments, Applied Biosystems, Chromatography Tech. Services, ChromTech, Inc., Dionex Corp., Eksigent Technologies, Fisher Scientific/Thermo Fisher, GMI Inc., LabWare Inc., Lakeview, LEAP Technologies, Midland Scientific, Oxygen Service, Pace Analytical Services, Parker-Hannifin, Perkin Elmer, Phenomenex, Quantum Analytics, SGE Inc., Shimadzu Scientific Inst., Silvertone Sciences, S-Matrix Corporation, Spectrum Chemicals and Lab, Supelco/ Sigma Aldrich, Thermo Scientific, Toll Company, Varian Inc., VWR Scientific Products, Waters Corporation, Whatman Inc.*



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## EDUCATION CORNER

*Erin Sloan, MCF Education Committee Co-Chair  
Jamie Koehler, MCF Education Committee Co-Chair*

*Committee Volunteers: Gibbes Bailie, Jade Barker, Martin Bevan, Kelly Boucher, Wendy Christensen, Bill Cameron, Stephanie Drier, Cara Hagen, Jeanette Morrison, Jean Seidel, DeWayne Townsend*

Greetings! Hopefully everyone has had a great summer. Now that fall is here, it is time to get rolling with MCF again! We are excited for the course offerings we have planned for you this year, and hope that you are excited as well! The 2009 Spring Symposium went wonderfully this year. We had three great courses by three outstanding instructors! In fact, we have already started planning for next year's symposium in addition to our fall and winter courses. Daron Decker has already agreed to return to teach another GC class, and we are working on securing instructors for other classes as well. Be sure to keep your eyes open for more information as the date gets closer, both in the newsletter and by visiting the website: <http://www.minnchrom.org>.

It has become more and more evident that our economy is not doing well. We hear about it in the news constantly. However, many believe that the worst is over and that things are on the rebound!! With so many questions in our world though, it only stands to reason that we'd like to have as many things in our life as secure as possible. Job security is something that everyone is trying to achieve right now. What about you? Are you in a position where you are all but irreplaceable? Is there something you feel you can do to enhance your appeal to your current employer or prospective employers? Not sure? We can help!!! MCF offers a variety of classes throughout the year to do just that. We offer courses in basic HPLC and GC, as well as a variety of troubleshooting courses and other techniques. Have an idea that you want to see in the future?? We are always looking for new course ideas, so send your suggestions our way!!!

We realize that a lot of companies are buckling down on expenditures, and we are working towards ways to help you convince the 'powers that be' to send you to a course. Keep your eyes open on course flyers and other emails about possible discounts on multiple course registrations and maybe even a 'frequent learner' program for those who attend multiple courses over a period of time. On top of all that, your MCF course tuition may be tax-deductible!! There are of course rules and restrictions, so please talk to a tax professional to see if your case qualifies.

We are taking registrations for the courses being offered in January! We look forward to seeing you at a class soon. Watch for further information about these and other exciting courses online at [minnchrom.org](http://minnchrom.org) or contact Jan Jopke, CCS Events, [ccsevents@comcast.net](mailto:ccsevents@comcast.net) or 952-934-5082. If you or someone you know isn't receiving either email or snail mail communication from the MCF, please contact Joanne Costello at [minnchrom@gmail.com](mailto:minnchrom@gmail.com). Finally, we are always looking for "Education Corner" continued on Page 3

**EDUCATION CORNER** *Continued from Page 1*

new course ideas, as well as general advice on how to improve our course offerings. Please feel free to contact me at [esloan@legend-group.com](mailto:esloan@legend-group.com) or Jamie Koehler at [Jamie\\_Koehler@cargill.com](mailto:Jamie_Koehler@cargill.com) with any questions or concerns. Thank you so much for your continued support!!

**ADVANCED GC TROUBLESHOOTING, CLASS REVIEW, SYMPOSIUM 2009**

*Reviewed by Wendy K. Christensen*

Geared towards an audience with a solid gas chromatography background, Agilent Technologies technical support guru Daron Decker's Advanced GC Troubleshooting course given at this year's MCF Spring Symposium was not for the faint of heart. The day and a half course began with a brief theoretical review of capillary gas chromatography. Then it quickly moved on to carrier gas properties, injection port options, column selection, modes of detection, and principles behind quantitation.

After lunch, Dr. Decker's entertaining teaching style kept the entire class engaged in discussion about troubleshooting tips, tricks, & techniques. Using a logical approach to identify what has changed in your chromatography to indicate where the problem lies in your system, the class reviewed examples of common symptoms that arise when there is a change in injection, detection, or column selectivity.

On day two, students hit the ground running with a problem set packet filled with actual problems that had been called into the Agilent Technologies help desk. Roles reversed, students took turns playing the help desk technician while the instructor called in the problems.

Emphasizing the need for clear communication when discussing trouble, Dr. Decker's depth of knowledge and excitement about gas chromatography shone through; making this course a "must attend" for every practicing gas chromatographer.

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**MCF is looking for a Newsletter Editor!**

*Are you interested? For more details, contact [MinnChrom@gmail.com](mailto:MinnChrom@gmail.com)!*

**JANUARY 2010 EDUCATION COURSE**  
***Beginning GC***  
**Featuring Gary Reineccius and Rick Rossiter****HPLC TROUBLESHOOTING AND DIAGNOSTICS, CLASS REVIEW, SYMPOSIUM 2009**

*Reviewed by Bill Cameron*

This year John Dolan from LC Resources accepted an invitation to teach a class at the MCF Spring Symposium entitled "HPLC Troubleshooting and Diagnostics." John took the class of 26 students through a journey that started with the basics of HPLC, moved through the instrument from pump to data system, and ended with a discussion of how to avoid and/or solve the many problems that were discussed along the way. The instructor's expertise in the HPLC and his ability to connect with the students was evident throughout the course as he helped the students visualize the source of their problems and potential solutions.

John kept the class engaged with practical advice borne from real life situations; such as, "it is better to plan on and to make a few small changes, then to plan major changes and not implement them." By expertly weaving theory, practice, experiences, and potential problems into a systematic presentation that worked through the instrument from part to part John was able to keep the material from being overwhelming, yet imparted an amazing wealth of information to the students. Simple, yet profound 'nuggets of gold' were dispensed such as John's five rules - 1) Change one thing at a time, 2) confirm results with second run (problems and solutions), 3) replace original parts if the problem persists, 4) pay attention to indicators to future problems, and 5) maintenance records are important - that will change how each of us in attendance will approach our instruments.

The class was also able to learn from and to interact with a number of vendors who brought instruments into the classroom for the 'lab' portion of the class. These vendors, each of whom by design focused on different areas of their HPLCs, meshed with each other and John like a true team. The lab portion of the class reinforced the lecture and aided in the visualization of all that was discussed.

The applicable nature of the class and the willingness of John Dolan and the representatives of the instrument vendors to answer the questions of the students were greatly appreciated. Courses like "HPLC Troubleshooting and Diagnostics" demonstrate one of the goals of MCF, which is to educate and enlighten its members. The participating vendors demonstrate one of the strengths of MCF, which is a willingness of our vendors to donate their time and expertise to improve the courses. And finally, John Dolan demonstrates the reason for the success of MCF with his commitment to teach year after year and with his desire to share his knowledge and expertise with others.

## MASS SPECTRAL INTERPRETATION, CLASS REVIEW, SYMPOSIUM 2009

*Reviewed by Cara L. Hagen*

Mass Spectral Interpretation was one of the three Intensive Short Courses offered at this year's MCF Spring Symposium held May 12-14, 2009. One student wrote, "The Instructor [Fred Feyerherm] is very experienced and clearly showed it in his practical exposition. Not just a theoretician." Although attendance was lower than previous years, probably due to recent changes in our economy, the course was well appreciated by all those who attended.

Fred has the notes written below each Figure in the course manual, so you do not have to frantically take notes, you can truly listen and then be able to highlight the things that stood out. Mass Spectral Interpretation is a course that helps someone with the building blocks of Mass Spectra.

Fred started the course by giving a review, which emphasized the theories and fundamental chemistry necessary to understand the data that is obtainable from a mass spectrometer. One thing that was emphasized was that aromatic isomers are hard to distinguish with mass spectrometry alone; therefore chromatography must be used. One of the books referenced in the class was "Interpretation of Mass Spectra." Four Interpretation Tools discussed were the Nitrogen Rule, Isotopic Abundances, Rings + Double Bonds Calculation, and Logical Losses. The students really enjoyed the multiple problems and would have liked a longer course, which would allow more time to look at the mass spectra in more detail. It sounds like there is a request for a 3-day course that includes actual library searching and more tricks that could be used to find out what the Mass Spectra indicates as the possible structure.

Fred Feyerherm works for Agilent Technologies as a GC-GC/MS Applications Engineer. Fred specializes in GC and GC/MS for pesticides, environmental, petrochemical and forensic applications and NIDA labs. Fred has developed methods for the Olympic committee, many branches of the federal government and numerous private consulting laboratories. Over the last fifteen years, he has worked to bring high speed GC into many labs and multiple applications. More recently, Fred has developed rapid multidimensional GC/MS solutions for forensic laboratories. Fred has a BS in Chemistry from the University of Houston. Prior to joining HP (now Agilent) in 1981, Fred was an analytical chemist at Dow Chemical. Fred was also a chemistry department staff member at the University of Houston, in charge of departmental instruments. Fred has a total of 38 years experience in gas chromatography, and 34 years experience in GC/MS.

Fred Feyerherm is one of those "down-to-earth" kind of guys, and he will always answer your question respectfully so don't be afraid to ask him.

A warm thank you goes out to Fred Feyerherm!

## FALL QUARTERLY MEETING

Chromatography Isolationism, featuring Dan Kempenich, Instrument Service Manager with Pace Analytical Services, Inc. Tuesday, November 17th, 2009

Hors d'œuvres from Mancini's: 6:30 pm      Talk: 7:15 pm

Location: Pace Analytical Services, Kasota Facility

727 Kasota Ave SE, Minneapolis MN 55414      612-656-1100

You've got carryover in your blank injection. You've flushed and cleaned and still can't seem to get rid of it... Where is it coming from? You've got a noisy FID baseline. You've baked the inlet and detector and cooked your column for hours but it still hops around like a rabbit on a bed of hot coals... Where is the problem?

If you've struggled through times like these when it doesn't seem to matter what you do to your chromatographic system the troubles just won't go away, jump into a conversation about different ways to drill down to the source of the problem. Troubleshooting in this business becomes a whole lot easier when you utilize the process of elimination. Come with some questions, come with some examples. We'll lead a session describing how much easier problem resolution can be and how much faster you can return your system to service if you use the isolation approach.

Quarterly meetings are free to MCF members! In addition, registration is not required for Quarterly meetings. Please come for food, drink, education, and networking opportunities! Hope to see you there!

## CORPORATE VENDOR VOUCHERS

*By Ron Schoonmaker, MCF President*

By request, the MCF Board of Directors has approved the creation of MCF gift certificate vouchers which may be purchased by vendors to be given to customers. The goal is to provide vendors with a means of establishing customer goodwill and value while providing chromatography customers with exposure to the MCF and its opportunities for education and member interaction. Gift Certificates will have a face-value of \$25 and may be applied toward membership, symposium attendance, classes, or a fee-based MCF event. Vendors who are interested in purchasing gift certificates at a discount may contact me (Ron) at 651-733-9856.

***Want to advertise your company with MCF  
on the website and in the newsletter?***

*Vendor advertising prices range from \$50 for 30 days  
to \$300 for one year. For more information, please  
contact Joanne Costello at 651-736-8441 or  
Ron Schoonmaker at 651-733-9856.*