

Eleventh IDRC Conference – 2002

Chairman: Emil Ciurczak



What the IDRC Means to Me

Emil W. Ciurczak

I learned about Chambersburg early on in my NIR career. The folks at Technicon suggested I drop by and see what I could learn. Being new, I didn't realize just how important the people were around me, which was a good thing. I would have been cowed had I known about Karl and Fred and Phil and Dave and, and, and....

I enjoyed the dorm for that trip (1984?) and found out why I was told to bring a fan. It was like being in school again, but without attendance being taken. I met Peter Griffiths across the net in volleyball (two pudgy white guys who thought they could jump) and later was impressed by his strong knowledge of IR. And I learned that NIR was more than a method for my (pharmaceutical) raw materials and wheat; it was actually based on science! Wow! What a concept!

As a novice, I admit that I went to some of the papers, looked at some of the hardware, and sat down with people who knew a heck of a lot more than I. I drank until late, then got up early... for five days! But, I watched the conference grow by fits and starts. And, better than all the material sessions was the underlying concept that the pioneers were ready to admit we rookies, listen to us, consider our recommendations, and grow with the latest trends. These guys were good! They never gave the rookies the attitude that, since they were first, they knew better. Instead, they continued to grow and contribute.

What has been added since I started to attend? Well, we went from "open" afternoons to trips to Gettysburg, shopping, etc. We added (hopefully to stay) the outdoor BBQ. [More people attend the BBQ than the "after-hours" parties and are sober enough to understand one another.] Then, while some may not approve, we have optional afternoon seminars. These are usually specialized (as compared with plenary sessions) and are "optional." Last conference (2004), we added a weekend

seminar at the beginning of the conference. And, of course, we still have the short courses. Who knows what will be added in future meetings?

Through all of these changes, add-ons, and updates, one thing remains constant. A person can always find someone with whom to discuss a problem, proposed project, or pet concept. Despite the hand-wringing of some about the IDRC becoming "too busy," we seem to always find time for one-on-one discussions.

I love the updates to the physical plant (air conditioning is becoming *de rigueur*) and the hearty meals and the evening parties, but, most of all, I love the people! It is wonderful to see grad students sitting down with the "name" players that they would only have read in the past and sharing ideas. The "teacher/student" wall does not exist! Keep the new things coming, but stay the same.

I only fear that the new breed of scientist, who eschews professional organizations, will not ignore Chambersburg. It is not and never was just another meeting! It is unique and should be seen that way. An awful lot of us are getting old of tooth and we need new blood. There seems to be an approach to R&D that is closer to a "job" than a "career." I just hope that there are enough young Karls and Phils and Davids and Freds out there to take up the torch of imagination and inquiry for the next 25, 50, or 75 years of IDRC.



IDRC-2002

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Location and Housing

The Conference is held on the 300-acre campus of Wilson College in the foothills of the Appalachian Mountains in south central Pennsylvania. Chambersburg is a charming, historic town. It is a two-hour drive from Baltimore or Washington. The nearest International airport is Harrisburg, PA, about one hour drive. A clean, well-supplied dormitory room, all meals, and access to a pool can be included with your registration. Alternate, near-by accommodations are available and more information will be sent with the second circular.

Additional Information

Campus accommodation is available from Sunday evening to Friday lunch, with a limited number of spaces for early arrivers and short-course attendees on Friday 9th and Saturday 10th. Attendance is limited to 150 participants. Family members may be registered as guests for meals and/or dorm rooms. Dress is very casual. Daytime temperatures average 85°F (30°C), with occasional rain.

The Council for Near Infrared Spectroscopy (CNIRS) sponsors IDRC.

For IDRC-2002 information, contact:

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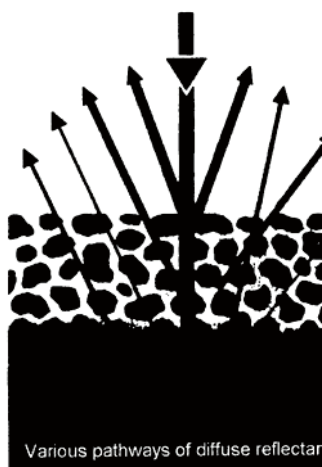
E-mail: Emil@Ciurczak.com

or

Conference web site:

<http://www.idrc-chambersburg.org>

11th International Diffuse Reflectance Conference



August 10-16, 2002

**Wilson College
Chambersburg, Pennsylvania
USA**

Second Circular

The 11th International Diffuse Reflectance Conference (IDRC-2002) will take place August 10-16, 2002, on the campus of Wilson College, Chambersburg, PA. This conference is held every even year, alternating with the International Near Infrared Spectroscopy conferences held in other countries.

IDRC-2002 will provide an informal forum for researchers and technologists worldwide, from the highly experienced to the novice, to exchange technical information and experiences in the field of diffuse reflectance spectroscopy. Although the conference is open to work in diffuse reflectance of any spectral region, Chambersburg has become "the home of the NIR community in North America."

Morning (8:00-12:00) and evening (7:00-10:00) sessions will be held over a five day period, from Sunday evening to Friday afternoon. There are no concurrent sessions. The meetings are very informal, with considerable discussion.

The afternoons are free for continued discussions, recreation (volleyball, golf, tennis, swimming, jogging, and hiking), poster sessions, and demonstrations of hardware and software. Wednesday afternoon will feature bus trips to Amish Country and the Rockvale Outlet Malls. Also, there are potential short trips to local museums, state parks, and historical sites.

Two days of short courses are offered before the conference. On Saturday a short course is planned on Introduction to NIR. On Sunday two optional short courses will be offered: (1) Practical PCA, PLS, and Wavelength Selection, and (2) Advanced NIR Technology - Reviews of Instrumentation and Algorithms for Standardization/Calibration Transfer.

IDRC-2002 will focus on practical aspects of NIR spectroscopy. Sessions will include origins of signal interference (chemical and physical effects), measurement of instrument performance, quantitative/qualitative aspects of chemometrics, calibration and spectral transfer, and novel applications and approaches. Sessions will also include the popular "software shootout" in which participants treat a common data set with their favorite software and vie for prizes for their data analysis and presentations. There will be a vendor workshop on Tuesday evening and a banquet, with guest speaker, on Thursday evening.

Posters

Participants are encouraged to make poster presentations, especially in areas of the application of diffuse reflectance. Speakers may also present posters. An award of up to \$2000 toward expenses to the next international conference will be made for the best poster. Awards also will be given for the second and third place posters. Please submit poster

titles to:

Bob Windham, USDA/ARS
Russell Research Center, P.O. Box 5677
Athens, GA 30604-5677, USA

E-mail: rwindham@ars.usda.gov

Exposition

Instrument and software manufacturers will display their wares in an area close to the residential rooms, where a reception will be held at the close of each evening session. Contact Howard Mark (Phone: 1-845-357-9496. E-mail: HLMark@Prodigy.net)

Conference Web Site

For more details on registration, sessions, short courses and activities contact the conference web site: <http://idrc-chambersburg.org>

Conference Registration for

**August 10-16, 2002
Chambersburg, PA, USA**

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Golden's Bridge, NY 10502

Please register me as a conferee. A check made payable to IDRC-2002 is enclosed.

I intend to register at the conference

Anticipated Fees	Regular Before July 1	
Regular Resident*	\$370	\$320
Student Resident*	\$250	\$200
Non-resident*	\$280	\$230
Registration only	\$200	\$150

includes registration and meals

- single room
- shared double room

- I wish to offer a poster.
- Title/Topic of poster or lecture _____
- I am interested in a short course

Name _____
Company _____
Address _____
Phone _____
C A Y _____

Session Topics and Daily Agenda (all sessions are plenary) [Any titles or speakers not listed in this circular will be listed on the website www.idrc-chambersburg.org as they become available.]

Sunday, August 11, 2002

1900 - 2030 Plenary (after dinner) Speaker. **Robert Lodder, Ph.D.** Univ. Kentucky, School of Pharmacy and Medicine, Lexington, KY, USA

Monday, August 12, 2002

0800 - 1000 Chemometrics I
Tony Davies, Chair

Tom Fearn (University College London, UK), "Calibration Transfer"

Husheng Yang (University of Idaho, USA), "Neural Networks and PLS"

Robert P. Cogdill (Iowa State University, USA), "Local Chemometrics"

10:30 - 12:00 Chemometrics II Tom Fearn, Chair

Paul Geladi (University of Umea, Sweden), topic to be confirmed

Tony Davies (Norwich Near Infrared Consultancy, UK), "Wavelets/Database Analysis"

Monday, August 12, 2002

1900-2200 NIR Theory
B. Buchanan, Chair

Howard Mark (Mark Electronics, Suffern, NY, USA), "Statistics in NIR (working title)"

Peter Griffiths (University of Idaho, Moscow, ID, USA), "Accurate Wavelength Measurements in NIR Diffuse Reflection"

Bill Fateley (University of Kansas, Manhattan, KS, USA), "Theory - What Theory?"

So-Chin Lo (Merck & Co, Inc), "Band Assignments in NIR."

Steven Arrivo - (Pfizer, Inc) TBA Tuesday, August 13, 2002

0800 - 1200 Agriculture
S. Delwich, Chair.

Phil Williams (Canadian Grain Commission), "Use of Discriminant Analysis in Grading Grains by NIR Spectroscopy"

Ian Murray (Animal Biology Division, SAC, UK) "Adulteration of Fishmeal with Meat or Bonemeal by NIR Reflectance"

Pierre Dardenne (Agricultural Research Centre of Gembloux, Belgium) "NIR Imaging and Reflectance for Detection Meat in Animal Feeds"

Ian Wesley (Bread Research Institute Australia, Ltd., New South Wales), Brian Osborne, and Robert Anderson "Spectra Curve Fitting Procedures for Quantitative and Qualitative Analysis of Related Biochemical Compounds (e.g., amylose and amylopectin) in Cereals."

Tuesday, August 13, 2002

300-2200 Vendor's Session

H. Mark, Chair.

Vendors exhibiting in exhibition hall are invited to give brief summaries of equipment innovations being displayed or available since last Conference.

Wednesday, August 14, 2002

800 - 1200 Pharmaceuticals

G. Ritchie, Chair.

Debbie McCune (Abbot Labs, Ontario Canada), "Meeting the Regulator Challenge: the Evolution of an Approve Pharmaceutical NIR Release Method"

Thomas Cambron (Procter and Gamble Pharmaceutical) "Vibrational Spectroscopy in Pharmaceutical Product Development"

Jim Drennen & Graduate Research Student (Duquesne School of Pharmacy, Pittsburgh PA, USA)

Robert Forbes (Eli Lilly Inc, Indianapolis IN, USA) "Specificity: the Most Important but Most Overlooked Characteristic of a NIR Method"

Myron Block, H. Guthermann, and Misner (Optix, LP), "Non-Invasive *in vivo* Pulse Kromoscopic Analysis"

Wednesday, August 14, 2002

12:00- 1700 Free Time

Bus Trips to areas of interest

Golf Tournament,

Timed Run/Walk

Swimming (indoor pool) Wednesday, August 14, 2002

1900 - 2200 Software Shootout F. McClure, Chair

Various "entrants" competing for prizes for his/her best interpretation of software set, previously downloaded from web site. Each "entrant" uses his/her approach with chemometrics of choice to interpret one standard data set. Each will present results and defend position at the session (thus, "shootout".)

Thursday, August 15, 2002

0800 - 1200 Technology/New Devices C. Kradjel, Chair.

Robert Wilt, George Toth (Innovative Technologies Group, Inc), and Alan Bickel (Bran & Luebbe, Inc) "New Web Appliance or NIRA?"

P. Wilks (Wilks Enterprises, USA) "Reaction Monitoring with A Small, Dedicated, IR-ATR Device"

G. Kemeny (Consultant, USA), "Comparison of NIR and MIR Techniques for Analyzing Pharmaceutical Excipients"

Brian Curtiss (Analytical Spectral Devices, Boulder, CO, USA), "Continuous Multichannel Inspection of Solid Dosage Forms in Blister Packs by NIR Reflectance Spectroscopy"

Thursday, August 15, 2002

:2:00-17:00 Free Time

Discussion time and sports - open Thursday, August 15, 2002

1700 -2200 Dinner. Awards, After-Dinner Speaker
(tba)

Friday, August 16, 2002

0800 - 1200 Imaging

J. Drennen, Chair

Robert Lodder (University of Kentucky, School of Medicine and Pharmacy, Lexington, KY, USA),
"Analysis of Bacteria and Bacterial Spores by Hyperspectral Imaging"

John Turner (Cleveland State University Cleveland, OH, USA), "Chemical Imaging for Biological Control"

Three others, TBA

Short Courses Saturday, August 10, 2002

8:00 - 17:00 "Electronics for Spectroscopists"

W. Fred McClure (North Carolina State University Raleigh, NC, USA)

Based on a series in *NIR News* of the same name, Dr McClure uses his many decades as a research spectroscopist and engineer to outline and explain the pertinent details of this subject.

Sunday, August 11, 2002

8:00 to 17:00 "Introduction to Near Infrared Spectroscopy and Chemometrics"

Tony Davies (Norwich Near Infrared Consultancy, UK) and Tom Fearn (University College London, UK)

Topics are evident from the title and participants need no special background experience to enjoy and learn from these two acknowledged experts in the field. Use this chance to discuss topics one-on-one with our instructors.