Chemistry
A Division of the
Special Libraries Association

SLA
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and Information

SLA Chemistry Division E-Newsletter

Volume 20 Issue 2 October - December 2005

Inside This Issue:

Message from the Chair

Ted Baldwin

Greetings, Chemistry Division members! Your division officers and functionaries have certainly been busy in the months following the Toronto conference, and they deserve much praise for the good work they do. I have many items of business and accomplishment to report, so let me get right to it.

Since my last column, the Chemistry Division membership completed a vote on the matter of bringing in the Materials Research & Manufacturing Division (MRM) as a section. Nearly half the Chemistry Division members voted, and the final tally was overwhelmingly in favor of adding MRM as a section. I appreciate so many of you making your voices heard. We now await final approval from the SLA Board before official changes in MRM Division status can occur.

In anticipation of these changes, Dawn French (Past Chair, Chemistry Division) is leading a Transition Committee, composed of several members of the Chemistry Division and two members of MRM Division. This committee is planning for next steps to ensure a smooth integration. More information will be forthcoming from this group. For now, know your ideas and concerns regarding the transition process are welcome and valued. Please send these to Dawn French or me.

The Web conference featuring the Toronto poster session presentations on "Better Understanding Your Users" took place July 18-31. The event attracted a number of new people to the conferencing system, and feedback from the conference survey showed that both the content and the delivery medium were well-received. You can find this and past Web conferences archived at http://forum.lib.lsu.edu/slachem/archive/oldforums.html. Bill Armstrong deserves many thanks for his efforts promoting and administering the Web conferences. We plan to continue using this forum for future professional development events including the Baltimore poster session. If you think of any other possibilities, please let me know.

In other professional development news, the call for nominations for the 2006 Marion E. Sparks Award is in this issue. I would like to thank Svetlana Korolev and Jim Martin for their continued service on the Award

Chair's Message, cont'd from page 1.

committee and welcome Cory Craig (the first Sparks Award winner in 2002) as a new member of the committee. Cory will assume oversight of the Award process in the fall of 2006.

I am happy to say that conference planning for Baltimore is moving forward. For this year's sessions, we have collaborated with a variety of divisions to create an interesting suite of programming. Session topics will include technical competitive intelligence, materials and polymer properties, the science of chocolate, and a patents roundtable. We also plan for several opportunities to gather and network with new and old colleagues, including the early bird dinner, new members' brunch, division open house, and all-sciences evening reception. Thanks to Judith Currano, Professional Development chair, three continuing education courses for Baltimore were submitted and approved by SLA. In addition to the classic courses "Chemistry for the Non-Chemist Librarian" and "Chemical Information Sources," we will be offering "Diving into Patents," a new patent primer course, with the Engineering Division.

Denise Callihan and I are seeking a variety of conference speakers, moderators, and reporters to help make this conference a great experience. Please let us know if you are interested in serving. We hope that you will leave the Baltimore conference with new ideas, questions, and challenges and many happy memories. Watch for the full preliminary conference program in the February issue of Information Outlook. You can start learning about what to see and do in Baltimore now by visiting the Baltimore Convention and Visitor's Bureau online at www.Baltimore.org.

In January, I head to Houston for the Midwinter SLA Leadership Summit. If there are questions or concerns I can address while representing the division at this event, please let me know.

In closing, my heart goes out to all whose lives have been impacted by any of the natural disasters that have occurred in recent months. I hope this message finds all of you safe and well. – Ted ❖

From the Editors' Desktops

Mary Ann Mahoney and Meghan Lafferty

Do you ever need just the right image for a presentation or publication? If so, take a look at Ben Wagner's *Beyond the Web* column on science-oriented image collections. Sadly, we say *good-bye* to Ben as columnist in this issue, but we won't let him go far. Ben will still maintain a newsletter presence with his Chair-Elect message. We also welcome Robert Buchanan who will be the new column editor for the *Beyond the Web* column, starting with the January 2006 issue.

Thermodynamics and biophysical chemistry can certainly put the "hard" in hard science, but don't despair. In this issue, Linda Shackle lassos the "four horsemen of thermodynamics" in her *pH Property Help* column, and Emily Wixon has an excellent feature article on online resources for biophysical chemistry.

Many thanks also to Sue Cardinal, who once again, has generously shared highlights from the ACS National Meeting for all of us who could not attend. Enjoy! –- Mary Ann and Meghan ❖

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The Editor welcomes readers' contributions. Items wanted include: Articles of interest to the community of chemistry information specialists, book reviews for new reference materials, citations for new journals, accomplishments & accolades for the Members' Corner and website recommendations for "Beyond the Web of Chemistry." If you have something you would like to contribute, please contact the Editor or send it via e-mail as a text file or Word document.

Copy Deadline For January Issue:

January 10, 2006

Greetings from the Chair-Elect – A. Ben Wagner

Hi everyone!

Being in academia, I've just now managed to survive the heart of the fall semester with information literacy, SciFinder Scholar training, a search committee assignment, and two major regional conferences thrown in for good measure.

My main responsibility as program planning for the 2007 Denver National Conference is still very much on my mind. The first formal discussions and training for that task will occur at the January 2006 SLA Leadership Summit. Shortly I will be recruiting a program chair to work with me. In addition, I hope to find individuals willing to focus on individual sessions and make sure all the details are in place for each event.

I certainly welcome your ideas for programming that would encourage your participation in the 2007 conference. Some specific areas you can consider for feedback:

- Session topics and possible speakers
- Locations for tours and open houses
- Division suites and celebrations
- Continuing education courses

I am convinced that our Chemistry Division is one of the strongest in all of SLA, but it will take your involvement to maintain and enhance our presence within the information community. National meeting programming is key to maintaining a vital presence, help make that happen. Send me your thoughts. ❖

A. Ben Wagner
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716-645-2947 x230

WELCOME TO ALL OUR NEW MEMBERS!

April Colosimo
Concordia University

Jean T. Hiebert
East Carolina University

Rich Louis
Kennametal Inc.

Sally Roof
Madison Meadows Middle

Kathryn R. Webb
Baxter

Michael J. White
Queen's University

Biophysical Chemistry Online Resources

By Emily Wixson

Biophysical chemistry is an interdisciplinary field that focuses on the physical and chemical principles governing biological systems. Biophysical chemists seek to understand the molecular basis of interactions involving biological macromolecules and biological processes. This discipline employs spectroscopy and other physical methods to study biological molecules and processes. In academia, the interdisciplinary nature of this field is reflected in its alliance with a variety of traditional academic departments: Biochemistry, Chemistry, Molecular and Cell Biology, Physics, and Physiology. The Elsevier journal *Biophysical Chemistr*y aptly applies a descriptive subtitle: "... devoted to the physics and chemistry of biological phenomena" (http://www.elsevier.com/locate/inca/522499, accessed 10/8/05).

Many of the sites listed below also appear on the "Biophysical Chemistry Web Site" (http://chemistry.library.wisc.edu/biophysics/biophysicshome.htm) developed by Dr. Silvia Cavagnero and Emily Wixson at the University of Wisconsin-Madison Chemistry Department. This site was originally developed for Dr. Cavagnero's course Chemistry 565/665 "Biophysical Chemistry". Emily Wixson maintains the site as a resource for the biophysical chemistry community at UW-Madison.

I. Sites of General Interest

- CMS Molecular Biology Resource. http://restools.sdsc.edu/ (accessed 10/8/05).
- IMB Jena Image Library of Biological Macromolecules. http://www.imb-jena.de/IMAGE.html (accessed 10/8/05).
- ExPASy Proteomics Server. http://us.expasy.org/ (accessed 10/8/05).
- National Center for Biotechnology Information (NCBI) ENTREZ Databases. http://www.ncbi.nlm.nih.gov/Database/ (accessed 10/8/05).

II. Structure of Biomolecules

- Entrez Structure. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Structure (accessed 10/8/05). Molecular Modeling Database contains 3-D macromolecular structures (subset of PDB).
- Enzyme Structures Database. http://www.ebi.ac.uk/thornton-srv/databases/enzymes/ (accessed 10/8/05). Enzyme structures deposited in the PDB.
- Macromolecular Structure Database. EMBL-EBI. http://www.ebi.ac.uk/Databases/ (accessed 10/8/05).
- Nucleic Acids Database. http://ndbserver.rutgers.edu/ (accessed 10/8/05). Repository of three-dimensional structural information.
- PIR-NRL3D. http://pir.georgetown.edu/pirwww/dbinfo/nrl3d.html (accessed 10/8/05). Permits similarity searching of Protein Data Bank sequences; cross-references other PIR Protein Sequence Databases.
- Protein Data Bank ("PDB"). http://www.rcsb.org/pdb/ (accessed 10/8/05). Worldwide repository for 3-D biological macromolecular structure data.
- SCOP: Structural Classification of Proteins. http://scop.berkeley.edu/ (accessed 10/7/05).
- VIPER (VIrus Particle ExploreR). http://viperdb.scripps.edu/ (accessed 10/7/05). Descriptions of icosahedral virus structures in the PDB.

III. Function, Physical Properties, and Prediction

- Bioinformatics Center. RNA & DNA Folding Applications. http://www.bioinfo.rpi.edu/applications/mfold/ (accessed 10/7/05).
- BRENDA. http://www.brenda.uni-koeln.de/ (accessed 10/7/05). Enzyme Information System available free of charge for academic, non-profit users via the internet and as an in-house database for commercial users.
- Catalytic Site Atlas. EMBL-EBI. http://www.ebi.ac.uk/thornton-srv/databases/CSA/ (accessed 10/7/05)
- Database of Macromolecular Movements. http://molmovdb.mbb.yale.edu/. (accessed 10/7/05)
- PSA Protein Structure Prediction Server. http://bmerc-www.bu.edu/psa/ (accessed 10/7/05).
- PRINTS. http://umber.sbs.man.ac.uk/dbbrowser/PRINTS/ (accessed 11/29/05). Groups of conserved motifs used to characterize protein families.

Biophysical Chemistry Online Resources, continued

IV. Visualization Tools

- Chime, MDL (plug-in). http://www.mdl.com/products/framework/chime/ (accessed 10/7/05).
- Cn3D, NCBI (plug-in). http://www.ncbi.nlm.nih.gov/Structure/CN3D/cn3d.shtml (accessed 10/7/05).
- GRASP. Graphical Representation and Analysis of Structural Properties. http://trantor.bioc.columbia.edu/grasp/ (accessed 10/7/05).
- MolMol http://www.mol.biol.ethz.ch/groups/wuthrich_group/software (accessed 10/7/05). Molecular analysis and display. Also other tools from Institute for Molecular Biology and Biophysics. Zurich.
- Protein Explorer, University of Massachusetts (Java). http://www.umass.edu/microbio/chime/pe/protexpl/frntdoor.htm (accessed 10/7/05).
- RasMol, University of Massachusetts (plug-in). http://www.umass.edu/microbio/rasmol/index2.htm (accessed 10/7/05).
- Richardsons' 3D Protein Structure Laboratory, Duke University (plug-ins). http://kinemage.biochem.duke.edu/ (accessed 10/7/05).
- Deep View Swiss-Pdb Viewer, GlaxoSmithKline R&D Geneva. http://us.expasy.org/spdbv/ (accessed 10/7/05).
- WebMol, EMBL-Heidelberg (Java). http://www.cmpharm.ucsf.edu/cgi-bin/webmol.pl (accessed 10/7/05).

V. Techniques for the Study of Biomolecules

- Biophysical Techniques. http://www.biophysics.org/education/techniques.htm (accessed 10/7/05)
- spectroscopyNOW.com. http://www.spectroscopynow.com (accessed 10/7/05). Includes ezine, news, education and links for Atomic, IR, MRI, MS< NMR< Raman, UV, X-ray, Chemometrics, and Proteomics spectroscopy.
- Understanding Chemistry: Instrumental Analysis. http://www.chemguide.co.uk/analysismenu.html (accessed 10/7/05).
- The Basics of NMR. http://www.cis.rit.edu/htbooks/nmr/ (accessed 10/7/05).
- Crystallography Online. http://www.iucr.org/cww-top/crystal.index.html (accessed 10/7/05).
- Interactive Course on Symmetry and Analysis of Crystal Structure by Diffraction. http://marie.epfl.ch/x-ray/ (accessed 10/7/05).
- Interactive Tutorial about Diffraction. http://www.uni-wuerzburg.de/mineralogie/crystal/teaching/teaching.html (accessed 10/7/05).Guide to crystal structures and their Fourier transforms
- Mass Spectrometry On-line Tutorial. http://www.public.iastate.edu/%7Ekamel/mstutorial.html (accessed 10/7/05).
- NMR Information Server. http://spincore.com/nmrinfo/ (accessed 10/7/05).
- Structure Determination of Proteins with NMR Spectroscopy. http://www.cryst.bbk.ac.uk/PPS2/projects/schirra/html/home.htm (accessed 10/7/05).
- WebSpectra. http://www.chem.ucla.edu/%7Ewebspectra/ (accessed 10/7/05). NMR and IR study problems.

VI. Organizations

- Biophysical Society (BPS). http://www.biophysics.org/ (accessed 10/7/05).
- Bioelectrochemical Society (BES). http://www.bes-online.usf.edu/ (accessed 10/7/05).
- Biophysical Society of Canada (BSC). http://www.uqtr.ca/bsc/(accessed 10/7/05).
- European Biophysical Societies Association. http://www.ebsa.org/(accessed 10/7/05).
- International Union for Pure and Applied Biophysics.http://www.iupab.org/ (accessed 10/7/05).
- The Protein Society. http://www.proteinsociety.org/(accessed 10/7/05).

For background reading, see:

1. Bloomfield, Victor A.; Crothers, Donald M.; Tinoco, Jr. Ignacio; Nucleic acids: structures, properties, and functions; University Science Books: Sausalito, Calif., 2000.
2. Cantor, Charles R.; Paul R. Schimmel; Biophysical chemistry; W. H. Freeman: San Francisco, 1980.
3. Creighton, Thomas E.; Proteins: structures and molecular properties; 2nd ed. W.H. Freeman, New York, 1993.
4. Eisenberg, David; Crothers, Donald; Physical chemistry: with applications to the life sciences ; Michael Fornalski, artist; Benjamin/Cummings: Menlo Park, Calif., 1979.
5. Hammes, Gordon G.; Thermodynamics and kinetics for the biological sciences; Wiley-Interscience: New York, 2000.
6. Tinoco, Jr., Ignacio ... [et. al]. Physical chemistry: principles and applications in biological sciences; 4th ed.; Prentice Hall: Upper Saddle River, N.J., 2002. ❖

Emily Wixson is the Science Outreach Librarian at the University of Wisconsin-Madison

Call for Nominations For Division Officers

The Nominating Committee is requesting nominations for the offices of Chair-Elect (January –December 2007, term as chair begins January 2008) and Treasurer (January 2007-December 2008). The Committee would like to hear your suggestions for names of people to consider for these offices. Self-nominations are welcome.

The Committee will prepare the slate of candidates (one candidate for each position) and present the entire slate for a vote at the Annual Business Meeting in Baltimore (June 2006).

Nominations should be received by February1, 2005.

Please submit nominations to:
Dawn French
Chair, Nomination Committee, SLA Chemistry Division
Library
Millennium Chemicals
6752 Baymeadow Dr.
Glen Burnie, Md. 21060
410-762-1117
410-762-1030(fax)
dawn.french@millenniumchem.com ❖

2006 Marion E. Sparks Award for Professional Development.

The Chemistry Division of the Special Libraries Association is sponsoring a student/new member scholarship essay competition in 2006. The award is named to honor Marion E. Sparks, a chemistry librarian at the University of Illinois from 1913 until her death in 1929. Ms. Sparks contributed a great deal to the field of chemical information, her achievements include teaching courses on chemical information, and authoring and publishing what is argued to be the first book to formally address chemical literature and library instruction.

This competition is intended to encourage student members or new members of the Chemistry Division to attend the annual meeting and participate in the activities of the Chemistry Division of the Special Libraries Association.

AWARD: The winner will receive $1,500 to attend the 2006 SLA Annual Conference June 11-14 in Baltimore, MD. The winner will also receive a certificate of achievement and will be introduced at the Chemistry Division Business Meeting & Breakfast. This award is intended to reimburse the winner's expenses for attending the convention, including: registration, airfare, lodging, food and/or the continuing education course (registration in one of the Chemistry division CE courses - "Chemistry for the non-chemist librarian" or "Chemical Information Sources, Requests, and Reference", or any other continuing education course is recommended but not required).

ELIGIBILITY: All student members of the Chemistry Division and all individuals who became members of the Chemistry Division since January of 2005 are eligible to enter the contest.

TO ENTER: Compose an essay to address the candidate's objectives for professional development and the outcomes if a person be granted the award. Essay should not exceed 400 words or two typed doubled-spaced pages. Please include a resume and the names of two references.

Entries may be submitted by email or regular mail to:

Svetlana Korolev
UWM Libraries
University of Wisconsin, Milwaukee
Milwaukee, WI 53211
skorolev@uwm.edu

Deadline for submission: March 15, 2006
Essays will be judged by a panel of SLA Chemistry Division members.

The winner will be notified by April 10, 2006 ❖

pH property Help: Thermodynamics

Linda Shackle

The Four Horsemen of Thermodynamics:
Entropy
Free Energy
Heat Capacity
Heat of Formation

Thermodynamics is the study of energy and equilibrium at a macro, rather than molecular, level. Normally three laws of thermodynamics are given although sometimes a fourth is presented as the "Zeroth Law", a precursor to the First Law. The laws of thermodynamics can be applied in almost all areas of science and engineering. For a practical example, the recent hurricanes[1] that struck the southern United States owe their existence in part to the thermodynamics forces at work in the atmosphere.

Energy, unless restricted, has a tendency to disperse; this tendency is called entropy. S is the symbol for entropy and has units of energy (joule, calorie, British thermal unit) per temperature (Kelvin, Celsius, Fahrenheit, Rankine) hence J $^{o}C^{-1}$, Btu $^{o}R^{-1}$, etc.

Free energy, as its name implies, is the amount of energy available to the system under study. There are two types of free energy, Gibbs, named after Professor Josiah Willard Gibbs (1839-1903) of Yale University, and Helmholtz, named after Hermann von Helmholtz (1821-1894) a German physicist and physician. Gibbs free energy uses the symbol G and Helmholtz uses A (Arbeitfunktion = work function), however both may sometimes be designated as F. You are more likely to see Gibbs free energy in chemical reference sources and Helmholtz in physics resources.

Heat capacity is defined as the amount of energy needed to change a system's temperature by one unit. The symbol for heat capacity is C; the units are the same as for entropy. Sometimes specific heat capacity is given in thermodynamics tables; specific heat capacity is the amount of energy needed to raise one unit of a substance one degree in temperature. The symbol for specific heat capacity is Cp and the units are the same as for heat capacity except for the addition of the substance unit (ex. J kg^{-1} K^{-1}).

Heat of formation is the heat released or absorbed during the formation of a substance. Sometimes the term "enthalpy" is used instead of "heat" as in "enthalpy of formation". There are many kinds of "Heat of" properties, such as heat of combustion, heat of vaporization; all of them refer to the heat released or absorbed during that specific process. The symbol for heat/enthalpy is H with a subscript indicating the process, so heat of formation is H_f

Many studies are interested in the change in these properties, so the symbol for change, the Greek letter delta (Δ), is placed before the symbol. Ex. ΔS, pronounced as "delta S" or "change in entropy"

Entropy, free energy, heat capacity and heat of formation are usually the first four concepts studied in the field of thermodynamics and the property data for these are almost always found together, especially in chemistry resources. Compared to other property data, these are also relatively easy to find.

Sample Resources:

- NIST WebBook
  http://webbook.nist.gov/
- Web Elements
  http://www.webelements.com/
- Yaws' Handbook of Thermodynamic and Physical Properties of Chemical Compounds
  Available via Knovel, http://www.knovel.com

For More Resources see:

- Index to Chemical, Physical and Other Property Data
  http://www.asu.edu/lib/noble/chem/property.htm
- Thermodex
  http://thermodex.lib.utexas.edu/

1. Want to know about how hurricanes form? See these web pages from NOAA:
How do tropical cyclones form?
http://www.aoml.noaa.gov/hrd/tcfaq/A15.html and
Hurricane Dynamics.
http://www.aoml.noaa.gov/hrd/hrd_sub/dynamics.html ❖

Linda Shackle is the Chemistry Librarian at the Noble Science & Engineering Library, Arizona State University

Update: Chemistry Division Ad-hoc Committee for Information Literacy

By Linda Maddux & Cory Craig

The Ad-hoc Committee for Information Literacy met at the SLA Annual Meeting in Toronto on June 8th, 2005. The group agreed on a project to develop a list of information competencies that we think chemistry undergraduates should have. The competencies will build on the existing *Library Guidelines for ACS Approved Programs* and the *Undergraduate Professional Education in Chemistry: Guidelines and Evaluation Procedures* prepared by the ACS.

Incorporating input from liaisons to other groups, such as the ACS Chemical Education Division (CHED), ACS Chemical Information Division, SciFinder Advisory Board and ACRL, and following a similar project by the ASEE (American Society for Engineering Education), the committee plans to prepare a document that will be useful for chemistry librarians when training future chemists. It is expected the guidelines will include a broad selection of chemistry resources appropriate to a wide range of undergraduate colleges and universities.

For more information about committee activities see the Committee web page (http://www.reed.edu/~madduxl/dcheil/) or contact Cory Craig (cjcraig@ucdavis.edu) or Linda Maddux (lbm@reed.edu). ❖

Call for Posters SLA Annual Conference - Baltimore 2006

Libraries are changing at a rapid rate these days, forcing librarians to seek new and innovative ways of interpreting and fulfilling their roles within various organizations. How are you meeting the future? Are you using resources, materials, or even spaces in new or innovative ways that may help re-define or clarify your role as librarian or information professional? Are you beginning to interact with non-traditional users or groups?

If the answer is yes to any of these questions, we would love for you to consider sharing your ideas and experiences with your colleagues in the upcoming poster session at SLA in Baltimore, June 2006, sponsored by the Chemistry Division, Physics-Astronomy-Mathematics (PAM) Division, and the Science-Technology Division. The theme of this session is, "Working outside of the box: Science and Technology academic and corporate librarians interacting with non-traditional user groups, materials, spaces, and resources."

The poster session will provide an informal and lively venue for sharing innovative ideas on a topic that concerns us all. How are we defining or re-defining ourselves in these changing times? How do we see ourselves ten years down the road, and how is this vision beginning to manifest itself in the way we operate now? If such questions are of importance to you, please consider submitting an abstract for possible inclusion in the poster session. This is a theme that should engage us all, for it concerns the future of our profession. Guidelines for materials and layout of poster presentations are available on the SLA Chemistry Division website at http://www.sla.org/division/dche/poster.html.

Please submit your name, institution, fax, email address, poster title, and description (250 words or less) by email, fax, or surface mail to Bill Armstrong at the address given below. The deadline for submissions is March 1, 2006.

Any SLA Member is welcome to submit an abstract for consideration. In the event that a greater number of submissions are received than can be accommodated, members of the three sponsoring divisions will be given first preference. All applicants will be notified no later than April 1, 2005 as to whether or not their proposal has been accepted.

Contact Bill Armstrong at the address given below if you have any questions about this session. ❖

Bill Armstrong
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Middleton Library, Reference Dept.
Louisiana State University
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American Chemical Society National Meeting Highlights
Washington DC August 28-31, 2005
by
Susan K. Cardinal

As I walked across the National Mall in search of the new National Museum of the American Indians, I relaxed. I had successfully arrived in Washington D. C. for the fall meeting of the ACS and was enjoying one of the wonders recommended by Dawn French, chair of the SLA Chemistry Division. At the museum, I read stories about coping with imposed change within displays created by American Indians describing their history, beliefs and current practices. There were deep lessons to be learned.

Speaking of change, want to structure search the web? The buzz at this meeting for me centered on the IUPAC International Chemical Identifier (InChI™). There is a web application at http://pubchem.ncbi.nlm.nih.gov/edit/ (one of many) which generates InChI™s from structures you draw. You can copy and paste the InChI™ text string into Google and search the web. Answers may be sparse at the moment, but chemical suppliers, database providers, and journal publishers are considering adding these chemical identifiers to their publications. See http://www.iupac.org/inchi/ for a brief description and for more detail see the "Unofficial InChI FAQ" at http://wwmm.ch.cam.ac.uk/inchifaq/

The ACS Division of Chemical Information (CINF) programming was great starting with a session called "Planning for the Future: Chemistry Libraries in 2015". Jeremy Garritano of Purdue showed us how the number of chemistry libraries is decreasing as they are absorbed into general science libraries. Catherine Soehner of the University of California Santa Cruz described the renaissance of a beautiful reading room as a result of hosting well-marketed faculty lectures. To review the programming and view slides posted by the authors, go to http://www.acscinf.org/cinf/meetings/230nm/230cinfabstracts.htm.

Another session that captured my interest was called "What Chemists Need to Know about Intellectual Property". S. Scott Zimmerman from Brigham Young University explained how copyright is complicated and students don't know much about it. Often they confuse plagiarism with copyright and think that copyright permission is difficult to obtain. Graduate students may wonder about copyright implications of publishing an article that contains similar information as their dissertation. The Education Committee of CINF is planning a session on copyright at the Biennial Conference on Chemical Education in July 2006 at Purdue.

Chemical Abstracts Service demonstrated the 2006 version of SciFinder Scholar. Chemists will appreciate the ability to limit and group substance results by similarity, to remove duplicate results resulting from simultaneous Medline and CAPlus file searching, and to search for a known citation. We were thrilled to hear that a MAC OSX version will be released soon.

The Herman Skolnik Symposium was steeped in journal production history and promises for tomorrow as we celebrated the accomplishments of Lorrin Garson. The presentations were thought provoking, from the genesis of the Registry File as described by Roger Schenck from Chemical Abstracts Service to the exploration of disruptive technologies as described by Karen Hunt (delivered by Lorrin Garson). Lorrin, in his talk, described how early visions of electronic publishing were realized on a slightly longer than anticipated time scale.

In the exhibit hall, I stopped by the Beilstein Institute booth and was very impressed with the Beilstein Journal of Organic Chemistry. The funding sounds adequate, the infrastructure is in place, and the journal will be indexed in the major databases. They just need important articles and loyal readers to compete with other organic chemistry journals.

In a nearby booth, MDL was promoting the Discovery Gate (web) version of Beilstein. It works for MAC users, too!

I would be remiss if I neglected to mention the many enjoyable social activities, especially networking with my colleagues at the Herman Skolnik Reception sponsored by ACS Publications and CINF reception sponsored by CAS. Unfortunately I missed the Thieme sponsored Harbor Cruise. I found reflection time at the fantastic piano performance by Victoria Bragin, sponsored by the Division of the History of Chemistry.

The next ACS conference will be held in Atlanta, Georgia on March 26 to 30, 2006. Additionally, there are always opportunities to participate in CINF, especially on the Awards, Publications and Membership Committees. The CINF Education Committee is visioning the future of the cosponsored Clearinghouse for Chemical Information found at http://www.indiana.edu/~cheminfo/cciimnro.html. If you have ideas about this, please contact me at scardinal@library.rochester.edu. Thanks to my employer for making my participation possible. ❖

Susan Cardinal is the Chemistry Librarian at the Carlson Science and Engineering Library, University of Rochester.

Beyond the Chemistry Web…

A. Ben Wagner

Feel free to send recommendations to me at abwagner@buffalo.edu

Image meta-sites and search engines abound on the web. But it is nice to having a starting point for browsing. This column gives a small glimpse at a few of the science-oriented image collections.

GENERAL SCIENCE

- **Caltech Institute Image Archive** has a number of fine historical images/illustrations. http://www.archives.caltech.edu/
- Royal Society of Chemistry has a rather neat **Chemsoc timeline** with excellent images such as distillation of wine from 1332 and the first vacuum pump from 1654. http://www.chemsoc.org/timeline/
- A top notch directory to scientific image collections is run by **Technical Advisory Service for Images** (U.K.). http://www.tasi.ac.uk/advice/using/finding_science.html
- For photographs, check out the **SciencePhoto Library**. http://www.sciencephoto.com/
- **Science Textbooks and Historical Science Online** is a long list of classic digitized works with reasonable quality illustrations. Unfortunately, a number of links are dead. http://www.ntu.edu.au/education/online.htm
- **USGS Image Collections** directory focuses on federal government image libraries across all the sciences including NLM's History of Medicine, Smithsonian Image Library, and National Science Foundation Images. http://www.usgcrp.gov/usgcrp/links/images.htm
- **The New York Public Library Digital Gallery** is a general collection, but contains many fine science and nature images. http://digitalgallery.nypl.org/nypldigital/index.cfm

CHEMISTRY

- The University of Sheffield maintains **The Orbitron**: a gallery of atomic orbitals and molecular orbitals. http://www.shef.ac.uk/chemistry/orbitron/
- The University of Pennsylvania **Smith Image Collection** is devoted to the history of chemistry with an emphasis on pre-1850 material. http://imagesvr.library.upenn.edu/s/smith/

MATHEMATICS

- **Images and Mathematics** at University of Tennessee is a concisely annotated directory. http://archives.math.utk.edu/images.html

PHYSICS

- ***Physics News* Graphics** from the American Institute of Physics is a browsable and searchable image library appearing in *Physics News*. http://www.aip.org/png/
- **Physics in Pictures Archives** is a small, but interesting collection of photographs from the American Physical Society Physical Central web site. http://www.physicscentral.com/pictures/archives.html

My duties as chair-elect of the SLA Chemistry Division preclude continuing as the author of this column. It has been fun over the past few years to share interesting web sites with such a fine audience, but it is time to give someone else that opportunity. I'm pleased to announce that I am turning the column reins over to Robert Buchanan. Many of you already know Bob and of his skill in tracking down great websites. If you have sites to share with Bob, send them to buchara@auburn.edu. Good luck, Bob! ❖

Invitation to Participate in a Research Study of Virtual Reference Services (VRS)

Dear Colleague:
Greetings! We are writing to invite you to participate in a research study of virtual reference services (VRS).

Please consider participating in this project if you currently provide VRS in health-related information settings or you are associated with VRS systems in one of the following:

- an academic biomedical/health sciences library
- a hospital library
- a special bio-health-related library
- a VRS system with health-related services

The purposes of the study are: 1) to identify the required VRS knowledge and skills for health-related information services, 2) to integrate them into the LIS curriculum, and 3) to disseminate the results so as to promote the improvement of VRS education, continuing education, and professional development provided in LIS programs.

The data collection involves surveying information professionals who currently provide VRS in health-related information settings and the personnel associated with VRS systems. Questionnaires in Microsoft Word format will be sent to participants via email and will be returned the same way. The questionnaire is designed for ease of response and will take little of your time. The researchers will send each participant a report of the findings.

The PI is Dr. Feili Tu, Assistant Professor of the School of Library and Information Science at the University of South Carolina (SLIS/USC). The CO-PI is Nancy Zimmerman, PH.D., Associate Professor of the SLIS/USC. Two SLIS graduate students, Julie Boller and Mary Kristen Jeffcoat, are serving as the support staff in this research.

We would be deeply appreciative if you would participate in this study and we look forward to hearing from you. Please contact Dr. Feili Tu at tuf@gwm.sc.edu to participate. Your contributions will make a difference to our study and our profession. Thank you.

Sincerely,
Feili Tu, Ph.D.and Nancy Zimmerman, Ph.D. ❖

News from ACS Publications

ACS Legacy Archives
Access over a century of chemistry with a subscription to ACS Journal Archives, including all titles from 1879 to 1995. The Archives provides full-text searching of all titles with integrated searching between the Archives and Web Editions. You may subscribe to the Archives at an annual subscription rate OR take advantage of a new one-time payment option to gain ongoing access the ACS Legacy Archives.

To obtain a quote, contact your ACS Account Manager or the Agency & Institutional Services team at 1-888-338-0012 (U.S. and Canada), 614-447-3674 (Outside U.S. and Canada), or by e-mail at liblink@acs.org.

Citation Manager Functionality
Recently ACS introduced a new functionality benefiting all users of ACS journals on the Web: the ability to download a citation to citation manager. Now, researchers can simply click to download citations into their citation management software. This new link is displayed as "Download to Citation Manager" at the top of the HTML page, directly to the right of the "PDF version of this article" option. Users have the choice of downloading citations into BibTeX, EndNote, ProCite, or Reference Manager applications.

Look for updates in future issues of LiveWire.
[http://pubs.acs.org/4librarians/livewire/2005/6.12/index.html] ❖

Did you celebrate NationalChemistry Week this year? It was October 16 - 22, the theme was the Joy of Toys. If you did miss the celebrations, but are young at heart or have young children in your life, you should take a look at the website created by The Chemists in the Library Working Group to support NCW. It is a treasure chest of fun sites like Chemistry in the Toystore, Science Toymaker, and Dr. Slime's Laboratories. Resources for educators and toy safety sites are also listed. [http://library.stanford.edu/depts/swain/hosted/ncw/2005/index.html]. Next year, National Chemistry week is October 22 - 28, 2006, and the theme is *It's Your Home: It's All Built on Chemistry.* ❖

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