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2012 SLA Annual Conference Program Summaries

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2012 SLA Annual Conference Program Summaries

The Science of Beauty Care

Submitted by Vivienne Houghton

Program Title: The Science of Beauty Care

Speaker: Patricia Aikens, PhD, Technical Services Manager, BASF Beauty Care Ingredients

Contact: <u>patricia.aikens@basf.com</u>

Bio: Patricia Aikens received a BS in Chemistry from Rensselaer Polytechnic Institute in Troy, NY and a PhD in organic and colloid chemistry from Emory University in Atlanta, GA. She has done postdoctoral work at Lehigh University in the area of lipid vesicles and membrane transport. Patricia has worked in the cosmetics industry for over 15 years in the area of surfactant research and formulation development. The past 10 years has been in technical service for raw materials in skin-care and sunscreens.

Presented by: Chemistry Division, Food Agriculture & Nutrition Division, Science & Technology

Division

Sponsored by: ASTM International

Brief Summary

Overview

Patricia Aikens began her talk with an overview of the structure of the cosmetic industry as composed of "suppliers" (e.g. BASF, Ashland Chemical, International Flavor and Fragrance), who sell raw materials to finished goods companies called "customers" (P&G, Avon, Johnson & Johnson, L'Oreal, Colgate, Estee Lauder, Revlon, private label), who then sell to the end consumer (the public). In between the consumer and cosmetic company are the "distributors" (Walmart, CVS, Avon Rep, Macy's, internet sites, etc.)

Regulations

The FDA regulates some personal care products, including those with over-the-counter (OTC) drug active ingredients (sunscreens, antiperspirant, anti-acne, fluoride toothpaste and topical antibiotics) and those with colors (pigments and dyes.) All raw materials are listed on the labels of cosmetic products. OTC drugs require an INCI name (International Nomenclature of Cosmetic Ingredients) as assigned by the Personal Care Products Council (PCPC) and listed in the INCI Dictionary.

Science

The cosmetics industry involves five key areas of science: surface and colloid chemistry (emulsifiers, dispersants, detergents for cleansing), organic chemistry (active ingredients, fragrances), polymer chemistry (products requiring rheology modifiers or used as film formers), skin physiology and biochemistry, and test methodology/clinical evaluations.

Hair

Does your hair conditioner claim to make your lovely tresses noticeably thicker, fuller, sleeker and shinier? Typical, yet extensive, testing is done to substantiate such claims, including: styling evaluation, stiffness, combing, flaking, volume, shine, tactile properties, spray patterns and optimization, thermal protection and characterization of thermal and mechanical damage, curl retention, humidity tolerance, foamibility and color retention. Do the hair testing companies use real hair for the tests? Yes!

| A. Testing hair strength | B. Automatic hair comber measuring the force it takes to comb through hair | C. Curled hair in a humidity chamber to evaluate how it uncurls | D. Sensory assessment evaluation: A panelist is judging the feel of the hair |
|--------------------------|--|---|--|
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Figure 1. Machines used to evaluate and substantiate claims of hair styling performance Sunscreen

Why do sunscreen aerosol sprays feel so much better on your skin than the thick, white sunscreen lotions? The sprays are ethanol-based and feel cool when sprayed on your skin on a hot day. What does SPF mean? It indicates the level of protection from sunburn from harmful UVB radiation.

The active ingredients in sunscreens are UV filters. The FDA has a sunscreen monograph listing 16 approved ingredients, of which only six or seven are typically used. The monograph also outlines ingredient usage levels, claim substantiation, dosage forms, and labeling requirements. This monograph is currently being revised and is undergoing approval. The new monograph covers: broad spectrum SPF + UVA protection claims (ratio of each), testing method for SPF and UVA (invitro or in-vivo), photostability, water resistance claims, anti-aging and cancer prevention, and SPF maximum.

Skin care products

This segment includes 1) facial skin care products for moisturization, anti-aging (usually with SPF), anti-acne (OTC), and skin lightening; and 2) body care products for general moisturization and niche products for enhancers such as anti-cellulite.

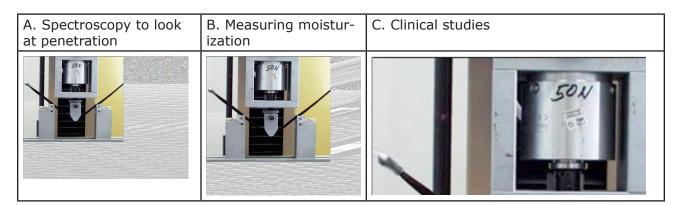


Figure 2. Testing methods for skin care "Cosmeceuticals"

Consumers spend billions on products, which claim to make them look younger. One of the largest segments is "anti-aging" or the treatment of photoaging with ingredients such as retinoic acid (FDA approved prescription drug) and cosmetic ingredients such as retinol and derivatives, hyaluronic acid, lipids, antioxidants, vitamin C, extracts, etc. At times, there can be an unclear division between what is claimed as cosmetic or pharmaceutical. Are the claims being made on "cosmetic" or OTC products? There needs to be very careful consideration to claims made.

Dr. Aikens also discussed the chemistry behind color cosmetics and personal care products: toothpaste, mouthwash, antiperspirants/deodorants, shaving products, soap, bath and shower cleansing products, fragrance, and depilatories. •

How and Why Things Fail

Submitted by Vivienne Houghton

Program Title: How and Why Things Fail - Forensic Engineers and Information Specialists

Sponsored by: Inspec Inc., ProQuest & Dialog, Springer

Speaker: Michael E. Stevenson, Ph.D., P.E. President, Principal & Chief Executive Officer at En-

gineering Systems, Inc. (ESI) **Contact:** mestevenson@esi-atl.com

http://www.esi-website.com

Bio: B.S. and M.S., Metallurgical and Materials Engineering, University of Alabama; Ph.D., Metallurgical Engineering, University of Alabama. Registered P.E. in Alabama and Georgia. Industrial Advisory Board, University of Alabama Department of Aerospace Engineering and Mechanics. Member of ASM, ASME, ASNT, ASTM, AWS, IMS, NACE and TMS. Numerous technical presentations and publications. Specializes in failure analysis, material and mechanical testing, mechanics, corrosion, metallurgy, testing and inspections.

Brief Summary

Dr. Michael Stevenson spoke about the critical role of the information group at ESI, the engineering investigation firm for which he is the President, Principal and CEO. The moderator for this presentation was Cheryl Hansen, Chair of SLA's Science & Technology Division and engineering research librarian at ESI. Cheryl is a solo librarian who takes care of the research and reference needs of ESI's engineers located around the country.

ESI deals with failure analysis and forensic investigation. However, whereas the television show CSI can solve cases in 45 minutes, Dr. Stevenson points out that real life investigations, especially federal investigations, usually take several years.

Often, the metallic evidence is all that is left after a disaster. It takes an incredible amount of background data for the information group to unravel the mayhem and reconstruct past events. They need to separate fact from fiction so that the physical evidence can tell its story. The faster and more coherently information can be processed into knowledge, the more precise the investigation can be. Experts disagree when there is poor information, such as many subjective opinions, little objective information and limited literature. The experts with the most access to the best information that is based on scientific methods can have the best case.

ESI's investigations are based on the scientific method where they identify the problem, define the problem, collect data, analyze data, develop the hypothesis, test the hypothesis, and select the final hypothesis. The questions that the engineers ask are: What happened first or what "broke" first? Did it fail all at once or over time? If it failed all at once, then which was greater, the load or the capacity? If it broke over time, then what were the mechanisms and environment?

Sources of data in investigations include:

- 1) The physical evidence aka "the thing"
- 2) Witnesses
- 3) Industry literature
- 4) Standards

- 5) Scientific literature
- 6) Specifications and drawings
- 7) Patents

Dr. Stevenson emphasized that although the "face value" of the evidence can be deceptive or difficult to understand, the physical evidence never lies. And that "the key to the most successful investigation isn't the lab, it's the library." That is, "information specialists drive the failure analysis business."

Dr. Stevenson is the Editor of the Journal of Failure Analysis and Prevention. He noted how the journal is now republishing old articles since failure analysis issues are now arising in China where so much manufacturing has been done.

Dr. Stevenson went over several case studies during his presentation including an alleged electrical fire in a mobile home and a motorcycle accident involving fray and corrosion. Detailed descriptions and photos of nine case studies are available on ESI's website (http://www.esi-website.com/projects/index.php), including United Airlines Flight 232, New Orleans Super Dome, a train derailment in a Baltimore tunnel and a Porsche Carrera GT accident. ❖

Computer Science Roundtable

Submitted by Vivienne Houghton

Program Title: Computer Science Roundtable

Presented by: Physics-Astronomy-Mathematics Division, Science-Technology Division

Sponsored by: Morgan & Claypool Publishers

Speaker: Michael Habib, MSLS, Product Manager, Scopus

Slides: Application Platforms and Developer Communities – New software tools and apps to

support the research workflow

Link to slides: http://www.slideshare.net/habibmi

Contact: habib@elsevier.com

Twitter: <a>@habib

Bio: Michael Habib is a Product Manager at Elsevier. He holds a MS in Library Science from the School of Information and Library Science at UNC-Chapel Hill. Habib is a member of the Scopus team where he focuses on streamlining the scholarly literature research workflow through enhanced search/browse experiences, tight cross-product integrations, accurate author profiling and improved mobile access. He previously held roles in such varied institutions as a public library, academic libraries, and a print-on-demand publisher.

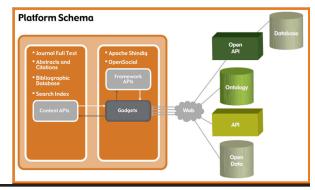
Brief Summary

Michael Habib presented on Elsevier's developer portal, SciVerse Applications, which is a marketplace that allows researchers to build, find and use applications to improve search and discovery within the SciVerse Product Suite: ScienceDirect, Scopus and Hub. Applications are also known as apps, gadgets or extensions. Elsevier provides a variety of tools to assist in building

apps including Framework APIs for integrating with the SciVerse Application Platform and content APIs for search & retrieval of SciVerse data.

There is a huge mass of data available to researchers outside formal literature. Much of this data is of high importance but is not easily accessible. Smart apps help make this data more accessible. Apps also facilitate interoperability and bring relevant data into context.

SciVerse Applications' open platform allows the



research community to build the tools they need. APIs and an open platform bring SciVerse to where users are and let other products add value to SciVerse. Hundreds of developers have participated in numerous challenges including the Elsevier Hackathon and Apps for Science. As of August 2012, there were 134 applications in the app gallery.

Speaker: Ellen Rotenberg, Senior Manager, Product Innovation, IP & Science, Thomson Reuters

Slides: New Tools for the Research Workflow **Contact:** Ellen.rotenberg@thomsonreuters.com

Bio: Ellen Rotenberg is Senior Manager, Product Innovation for the Scientific and Scholarly Research business of Thomson Reuters. She is responsible for the development of new products and solutions to improve productivity for the global academic and government research market. Ellen has played a key role in initiatives related to scholarly author identity (ResearcherID) and attribution as well as web service and API access to Web of Knowledge content. She has a Masters in Bioinformatics from the University of the Sciences in Philadelphia.

Brief Summary

Ellen Rotenberg presented on new offerings for the Thomson Reuters Web of Knowlegesm and EndNote® to improve the researcher's information workflow. These new tools address gaps in how researchers access content.

For Web of Knowledge, Rotenberg presented on Data Citation Indexsm -- an exciting, new, and comprehensive index of digital content that will be released in Fall 2012 that will make the data citable, searchable and reusable.



There are four document types in Data Citation Index:

- Repository: the resource comprised of data studies, data sets and/or microcitations
- Data Study: descriptions of studies or experiments with associated data used in the data study; includes serial or longitudinal studies over time.
- Data Set: A single or coherent set of data or a data file provided by the repository, as part of a collection, data study, or experiment
- Microcitation: aka nanopublication: the smallest unit of publishable information; an assertion about concepts that can be uniquely identified and attributed to the author, e.g. "Mosquitoes transmit malaria"

For EndNote, Rotenberg presented on the EndNote iPad app, which will be available later in 2012, bringing the power of EndNote to the iPad as a native application. Using stack technology, the EndNote app will have an interactive multi-panel design.

Speaker: William Gunn, PhD, Head of Academic Outreach, Mendeley, Inc. Slides: Supporting the Researcher Workflow through User-Centered Design

Link to slides: https://www.dropbox.com/s/erkgav84vs9undt/SLA 2012 computer science roundtable.pdf

Contact: http://www.mendeley.com/profiles/william-gunn

Bio: Dr. William Gunn is the Head of Academic Outreach for Mendeley, the leading research management tool for collaboration and discovery. Dr. Gunn attended Tulane University as a Louisiana Board of Regents Fellow, receiving his Ph.D in Biomedical Science from the Center for Gene Therapy at Tulane University in 2008. His research involved dissecting the molecular mechanism of bone metastasis in multiple myeloma and resulted in a novel treatment approach employing mesenchymal stem cells, the body's own reparative forces. Frustrated with the inefficiencies of the modern research process, he left academia and established the biology program at Genalyte, a novel diagnostics startup. From there, Dr. Gunn moved to Mendeley to pursue his mission of bringing modern network efficiencies to academic research.

Brief Summary

William Gunn spoke about "Instrumenting the Research Workflow" with Mendeley and gave a few examples of how Mendeley aids the researcher at each step of their research process (Searching, Reading/Annotation/Organization, and Writing). Gunn also discussed how Mendeley focuses on "connecting scholars in the cloud."

The issue is, "research is a social activity, but the tools and the data aren't." Gunn showed how Mendeley's desktop tool aids reading, organizing research, and collaborating with colleagues. Mendeley makes research more collaborative and transparent by aggregating data research in

the cloud, extracting research data, and collecting rich signals from domain experts. He then shared how Mendeley leverages the social signals provided by the 2 million researchers using their service to aid discovery of new research.

Gunn also showed the attendees how their new product, the Mendeley Institutional Edition, works to collect institutional level activity metrics. In short, Mendeley Institutional Edition is like Google Analytics for research on your institution. Gunn described another product, Mendeley Web, as a crowdsourced catalog of research, a social network of researchers, and a web service for research data and statistics. It goes beyond counting citation and statistics to a real-time view of content usage.



Gunn asked libraries to add Mendeley to their library websites and integrate Mendeley's set workshops into the library's curriculum. Lastly, he gave a plug for the Mendeley for Librarians Group (http://www.mendeley.com/groups/1109431/mendeley-for-librarians-public-no-files-in-here/) as a great place for librarians to get help from fellow librarians on learning about and using Mendeley.

DRM: The Discussion Continues

Submitted by Patricia Aspinwall

Moderators: Bert Saul, Simpson Gumpertz and Heger Inc.; Sabina Tannenbaum, LTK Engineering Services

Panelists: Scott Ahlberg, Reprint Desk; Diana Bittern, Knovel; Steve Noth, IHS

The moderators opened the session by summarizing what was discussed at SLA 2011 and the continued conversations since then.

Issues raised were:

- Desire to treat an electronic acquisition in a traditional way (purchasing it once and share it serially).
- DRM dealing with the different user-access models different libraries have.
- Dealing with the longevity of electronic documents (who owns the document after the subscriber relationship ends).
- Dealing with ownership labels.
- Dealing with usage statistics.

After that, the floor was opened to the panelist who briefly described what each of their organizations do. All panelists commented that DRM has some problems, but when used well, it can be supportive. DRM is usually put in place by the publisher and it is trying to enforce legal copyright.

Then the floor was opened for questions. There were many complaints about DRM, but as it was discussed these were more business model related problems or technology problems. The discussion ended that different users have different needs which will lead to differing views of DRM. ❖