

December 2003

Newsletter

In the Month of December...

- December 2-
Devotional *Larry H. Peer professor of comparative literature*
- December 9 –
Devotional *Sheri L. Dew president and CEO of Deseret Book Company and former second counselor in the General Relief Society*
- December 11-
Last Day of Classes Fall Semester
- December 15-19
– *Final Exams*
- December 25 -
Christmas

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The College of Physical and Mathematical Sciences

Kent Seamons and the Internet Security Research Lab

Kent Seamons and the Internet Security Research Lab (ISRL) have received recent well-deserved publicity in both the Y News and the Daily Universe. Kent's work is funded by grants from the U.S. Department of Defense and NSF, as well as a gift from industry. The research is aimed at exploring the use of digital credentials to establish trust between strangers on the Internet.

Says the Y News: "Specializing in trust negotiation — the process of verifying strangers' trustworthiness before giving them access to sensitive information — the ISRL's mission is to uncover online security techniques that help improve privacy and security in online transactions."

So far the project has involved almost two dozen undergraduate and graduate students. Undergraduates have co-authored a number of publications. The research experience has prompted many of them to pursue a graduate degree. "It's exciting to observe high-quality undergraduates contribute substantively to research efforts. The ISRL gives students the opportunity to participate in leading-edge security research," says Kent.

The technical products developed by ISRL will be released as free software. Early users of the technology will likely include the U.S. government's intelligence community and large businesses, and it may eventually appear in consumer software.

A Few Reminders

The annual Christmas social will be held Friday, December 13, 2003 from 12:00 noon to 1:30 p.m. in the ESC Foyer. All of those invited to attend are:

- All full-time personnel (including those on approved leave of absence or disability)
- Approved part-time, non-student personnel (not including on-call or temporary personnel)
- Emeriti and official retired personnel
- Widows/widowers of faculty, administrative and staff personnel.



This should be a great event and we look forward to seeing you there.

Also coming up is the annual college dinner. This will be held on Friday January 30, 2004 at 6:30 p.m. at the Sharon Stake Center. All full-time faculty, administrative and staff employees, permanent part-time employees, emeriti, and their partners are invited. So mark your calendars now. A flyer will be sent out later with further details.

College Publications

Chemistry and Biochemistry

M. B. Andrus, E.L. Meredith, E. J. Hicken, B.L. Simmons, R. R. Glancey, and W.Ma, "Total Synthesis of (+)- Geldanamycin and (-)-o-Quinogeldanamycin: Asymmetric Glycolate Aldol Reactions and Biological Evaluation," *J. Org. Chem.*, **68(21)**, 8162-8169 (2003).

R. A. Burton, S.G. Wood, and N. L. Owen, "Elucidation of a New Oleanane Glycoside from *Barringtonia asiatica*," Found online at http://www.arkat_usa.org/ark/journal/2003/Trofimov/BT_743H/BT_743H.htm, *Arkivoc*, 137-146 (2003).

J.S. Boyer, M. R. Francis, J. Boerio-Goates, "Heat-capacity Measurements and Thermodynamic Functions of Crystalline Adenine; Revised Thermodynamic Properties of Aqueous Adenine," *J. Chem. Thermodynamics*, **35**, 1917-1928 (2003).

L. Zhou, B. Yue, D.V. Dearden, E.D. Lee, A.L. Rockwood and M.L. Lee, "Incorporation of a Venturi Device in Electrospray Ionization," *Anal. Chem.*, **75**, 5978 (2003).

Computer Science

Casey T. Deccio, Joseph Ekstrom, D. Ryan Partridge, Kevin B. Tew, and Charles D. Knutson. "A Study of the Suitability of IrOBEX for High-Speed Exchange of Large Data Objects," Proceedings of the IEEE Global Communications Conference 2003 (GLOBECOM 2003), San Francisco, California, December 1-5, 2003.

Physics and Astronomy

G.-X. Hu, X.-X. Dai, J.-X. Dai, and W. E. Evenson, "Transition Temperatures of Bose-Einstein Condensation in Traps," *J. Low Temp. Physics* **133 (314)**, 239-249 (2003).

S.E. Jones, F. W. Keeney, A. C. Johnson, D. B. Buehler, F. E. Cecil, G. Hubler, P. L. Hagelstein, J. E. Ellsworth, M. R. Scott, "Neutron Emissions from Metal Deuterides," International Conference CF-10, Cambridge, MA, August 2003. Published at <http://lenr-canr.org/acrobat/JonesSEneutronemi.pdf>

S. E. Jones and J. E. Ellsworth, "Geo-fusion and Cold Nucleosynthesis," International Conference CF-10, Cambridge, MA, August 2003. Published at <http://lenr-canr.org/acrobat/JonesSEgeofusiona.pdf>

S. E. Jones, F. W. Keeney, A. C. Johnson, D. B. Buehler, F. E. Cecil, G. Hubler, P.L. Hagelstein, J. E. Ellsworth, M. R. Scott, "Charged-particle Emissions from Metal Deuterides," International Conference CF-10, Cambridge, MA, August 2003. Published at <http://lenr-canr.org/acrobat/JonesSEchargedpar.pdf>

Statistics

Yetkin, F. Z., Roland, P. S., Purdy, P. D., and Christensen, W. F., "Evaluation of auditory cortex activation using silent fMRI," *American Journal of Otolaryngology*, **24**, 281-289 (2003).

Nelson, O. L., McEwen, M. M., Robbins, C. T., Felicetti, L., Christensen, W. F., "Evaluation of cardiac function in active and hibernating grizzly bears," *Journal of the American Veterinary Medical Association*, 223, 1170-1175 (2003).

Xu, J., Bartholomew, C. H., Sudweeks, J., Eggett, D. L., "Design, synthesis, and catalytic properties of silica-supported, Pt-promoted iron Fischer-Tropsch catalysts," *Topics in Catalysis*, **26**, Nos. 1-4, (2003).

