

January 2004

Newsletter

In the Month of January...

- **January 5**- First day of classes
- **January 13** - Devotional: President and Sharon Samuelson
- **January 19**- Holiday: Martin Luther King Jr. Day
- **January 20** – Devotional: Thomas S. Monson
- **January 27** – Forum: Li-Young Lee, *member of the American Academy of Poets and a Guggenheim fellow*

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The College of Physical and Mathematical Sciences

Geology Award Named After Recipient

Dr. Lehi Hintze, professor emeritus of geology, has been awarded the first “Lehi Hintze Award for Outstanding Contribution to the Geology of Utah,” presented by the Utah Geological Survey and the Utah Geological Association.

A ceremony was held on October 29, 2003 in Salt Lake City, Utah. Dr. Hintze has spent a lifetime committed to studying, mapping, writing and teaching about the geology of Utah.

Hintze joined the faculty at BYU in 1955, where he served as a professor of geology until he retired in 1986. He also served as chair of the Department of Geology from 1962 to 1969.

He has published more than 100 geologic quadrangle maps on Utah Geology and has compiled geologic maps of the entire state at several different scales.

In addition, Hintze’s book, “Geologic History of Utah,” has become the standard reference work on the geology of Utah for geologists from around the world. He is now working on a revision of this book that he says will be an alternative for the tourists that attempts to tell the same story in more user-friendly terms.

The award will be given out every October during Earth Science Week to recognize people who have spent their careers studying Utah geology.

Upcoming Events

The annual college dinner 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. A flyer will be sent out later with further details.

Also coming up is the spring research conference, which will be on March 20th.

College Publications

Chemistry and Biochemistry

J.R. Sparrow, B. Cai, N. Fishkin, Y.P. Jang, S. Krane, H.R. Vollmer, J. Zhou, and K. Nakanishi, "A2E, A Fluorophore of RPE Lipofuscin: Can It Cause RPE Degeneration?" in *Retinal Degeneration: Mechanisms and Experimental Therapy*, La Vail et al., Eds., Kluwer Academic/Plenum Publishers 2003, pp. 205-211.

J.D. Whittaker, M. Brink, G.A. Hussein, M.R. Linford, and R.C. Davis, "Self-aligned Mechanical Attachment of Carbon Nanotubes to Silicon Dioxide Structures by Selective Silicon Chemical-vapor Deposition", *Appl. Phys. Lett.*, **83**(25), 5307-5309 (2003).

D.J. Henderson, D.T. Wasan, and A.D. Trokhymchuk, "Interaction and Force Between Colloidal Spheres in a Multicomponent Solution", *J. Chem. Phys.*, **119**, 11989-11997 (2003). (Selected for the *Virtual Journal of Nanoscale Science and Technology*, December 1, 2003.)

Y. Yang, D.J. Henderson, D.D. Busath, "Calcium Block of Sodium Current in a Model Calcium Channel: Cylindrical Atomistic Pore with Glutamate Side Chains", *Molecular Simulation*, **30**, 75-80 (2004).

D. Boda, T. Varga, D.J. Henderson, D.D. Busath, W. Nonner, D. Gillespie, and B. Eisenberg, "Monte Carlo Simulation Study of a System with a Dielectric Boundary: Application to a Calcium Channel Selectivity", *Molecular Simulation*, **30**, 89-96 (2004).

D. Boda, D.J. Henderson, P. Plaschko, and W.R. Fawcett, "Monte Carlo and Density Functional Study of the Electrical Double Layer: The Dependence of the Charge/Voltage Relation on the Diameter of the Ions", *Molecular Simulation*, **30**, 137-141, (2004).

Y. Ma, C. Song, W. Jiang, G. Xue, J.F. Cannon, X. Wang, M.B. Andrus, "Borylation of Aryldiazonium Ions with N-Heterocyclic Carbene-Palladium Catalysts Formed Without Added Base," *Org. Lett.*, **5**(24), 4635-4638 (2003).

Geology

Mayo, A. L., Morris, T. H., Peltier, S., Petersen, E. D., Payne, K., Gibbs, T. D., and Bills, T., "Active and inactive groundwater flow systems; evidence from stratified mountainous terrain." Geological Society of America Bulletin, v. 115, no. 12, p. 1456-1472 (2003).

Physics and Astronomy

R. L. Sandberg, D. D. Allred, J. E. Johnson, R. S. Turley, "A comparison of uranium oxide and nickel as single-layer reflectors from 2.7 to 11.6 nm," in *Advance in Mirror Technology for X-Ray, EUV Lithography, Laser, and Other Applications*, edited by Ali M. Khounsary, Udo Dinger, Kazuya Ota, Proceedings of SPIE Vol. 5193 (SPIE, Bellingham, WA, 2004) 191-203.

Jed D. Whittaker, Markus Brink, Ghaleb A. Hussein, Matthew R. Linford, and Robert C. Davis, "Self-Aligned Mechanical Attachment of Carbon Nanotubes to Silicon Dioxide Structures by Selective Silicon Dioxide Chemical Vapor Deposition", *Appl. Lett.* **83**, (25) 5307-5309 (2003).

Jean-Francois S. Van Huele, "Review of Per F. Dahl's book, *From Nuclear Transmutation to Nuclear Fission 1932-1939*", History of Physics Newsletter, 9, 1, 28-30 (2003).

