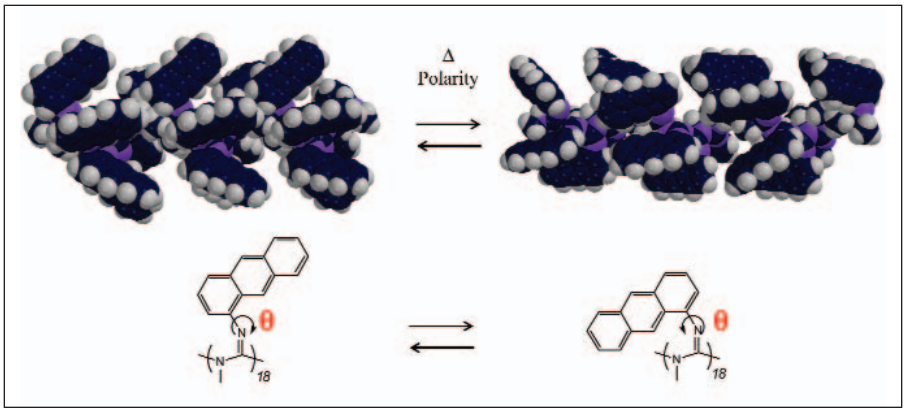

Figure 1. Theoretical models of the two states that result from the shutter-like motions of the anthracene unit.

tional circular dichroism (VCD), however, was not observed, which the researchers said indicated that the helical pitch remained constant during the other switching processes. The researchers reasoned that these observations can only be reconciled if the anthracene units wag synchronously around the N–C bonds in the anthracene moieties, which would change the orientation of the anthracenes relative to the nitrogens' lone-pair electrons (see Figure 1).

The researchers confirmed their hypothesis with theoretical molecular models. Using a molecular model similar to the repeat unit in Figure 1 (suitably capped with hydrogens), semiempirical molecular orbital theory was used to show that shutter-like motions of the anthracenes do not affect the helical pitch or the imine configuration. The researchers obtained the same result for an 18-mer using molecular mechanics simulations. The researchers also performed density functional theory (DFT) calculations to obtain a theoretical VCD spectrum, which is in excellent agreement with the experimental spectrum, and to assign the chirality, which is difficult to do experimentally, as *P*. The researchers said that, "Further modification and applications are currently under investigation."

STEVEN TROHALAKI

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News of MRS Members/Materials Researchers

ASM International has announced **2005 Awards and Fellows**:

Alton D. Romig (Sandia National Laboratories), **Acta Materialia, Inc., J. Herbert Hollomon Award**;

Herbert L. Eiselstein (Inco Alloys International Inc.), **ASM William Hunt Eisenman Award**;

J. David Embury (McMaster University), **ASM Edward DeMille Campbell Memorial Lecture**;

Stanley Abkowitz (Dynamet Technology Inc.), **ASM Distinguished Life Membership**;

John D. Hubbard (Bodycote International), **ASM Distinguished Life Membership**;

William J. Madia (Battelle), **ASM & TMS Distinguished Lecture in Materials & Society**;

Julia R. Weertman (Northwestern University), **ASM Gold Medal**;

Anthony G. Evans (University of Southern California, Santa Barbara), **Alpha Sigma Mu Lecture**;

Donald L. Runkle (Delphi Corp.), **ASM Medal for the Advancement of Research**;

Jack G. Simon (Westinghouse Savannah River Technology Center), **ASM Allan Ray Putnam Service Award**;

Kenneth Gall (University of Colorado), **ASM Bradley Stoughton Award for Young Teachers**;

Merton C. Flemings (Massachusetts Institute of Technology), **ASM Albert Easton White Distinguished Teacher Award**;

William Jones (Solar Atmospheres Inc.), **HTS George H. Bodeen Award**;

Gordon Hunter and William L. Griffin (Smith & Nephew Orthopaedics), **ASM Engineering Materials Achievement Award**;

Yulin Lu (University of Tennessee), **ASM Graduate Student Paper Contest**;

Arden Bement Jr. (National Science Foundation), **ASM Honorary Membership**;

David M. Saylor (U.S. Food and Drug Administration); **Anthony D. Rollett**, **Kee Young Jung**, and **Bassem S. El-Dasher** (Carnegie Mellon University); and **Joseph Fridy** (Alcoa Technical Center), **ASM Henry Marion Howe Medal**;

Kelly T. Conlon (Atomic Energy of Canada), **Roger C. Reed** (University of British Columbia), and **David Dye** (Imperial College), **ASM Marcus A. Grossmann Young Author Award**;

Alan J. Ardell (University of California, Los Angeles), **ASM Albert Sauveur Achievement Award**;

Peter King (Deakin University), **2005 HTS Bodycote Best Paper Award**;

Aziz Asphahani (Carus Chemical Co.), **ASM Materials Education Foundation George A. Roberts Award**;

Kousuke Kimura, **Satoshi Hata**, **Syo Matsumura**, and, **Takao Horiuchi** (Kyushu University), **ASM–IMS Jacquet Lucas Award**;

Sergei A. Shipilov (University of Calgary), **ASM Canada Council M. Brian Ives Lecturer**;

Jean-Pierre Immarigeon (NRC Institute for Aerospace Research), **ASM Canada Council G. MacDonald Young Award**; and

Srinivasa Rao Boddapati (University of Washington), **Mahesh Chaturvedi** (University of Manitoba), **Ramachandran Radhakrishnan** (Materials Modification Inc.), and **Srinivasan Shankar** (Shankar Associates), **ASM–IIM Visiting Lectureship**.

ASM Fellows are **Eugen Abramovici** (Falcon Met Engineering and Laboratories Inc.), **Riad I. Asfahani** (U.S. Steel), **GuoLiang Chen** (University of Science & Technology, Beijing), **Pavel Chraska** (Institute of Plasma Physics ASCR); **J.R. Douglas** (JRD Associates), **John N. DuPont** (Lehigh University), **Omar S. Es-Said** (Loyola Marymount University), **Luther M. Gammon** (Boeing Co.), **Amit Goyal** (Oak Ridge National Laboratory), **Chester N. Grant** (General Motors Powertrain), **John F. Grubb** (ATI Allegheny Ludlum), **Darel Hodgson** (Nitinol Technology Inc.), **Susan J.**

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Kerber (Material Interface Inc.), **A.S. Khanna** (Indian Institute of Technology), **Digby D. Macdonald** (the Pennsylvania State University), **Tapio A. Mantyla** (Tampere University of Technology), **Wojciech Z. Misiolek** (Lehigh University), **R. Devesh K. Misra** (University of Louisiana at Lafayette), **Evan K. Ohriner** (Oak Ridge National Laboratory), **Barry M. Patchett** (University of Alberta, Canada), **Horace Pops** (Superior Essex Group), **Sai V. Raj** (NASA Glenn Research Center), **Martin Roth** (Department of National Defense), **Alvin M. Sabroff** (Metalworking Consultant Group LLC), **Sanjay Sampath** (State University of New York), **David N. Seidman** (Northwestern University), **G. Sundararajan** (International Research Centre for Powder Metallurgy and New Materials), **Donald J. Tillack** (Tillack Metallurgical Consulting Inc.), and **Steve Yue** (McGill University).

News of MRS Corporate Affiliates/Materials Institutions

Nanosys Raises $40 Million in Private Equity Financing

Nanosys Inc. (Palo Alto, Calif.), a privately held company focused on developing nanotechnology-enabled products, announced in November 2005 that the company has raised approximately $40 million in private equity financing. This financing was led by El Dorado Ventures and includes new investors Masters Capital, Medtronic, Inc., Wasatch Advisors, and others. In addition, there was strong participation from existing investors including Alexandria Equities, ARCH Venture Partners, CDIB BioScience Ventures, CW Group, Harris & Harris Group Inc., In-Q-Tel, Intel Capital, H.B. Fuller Company, Lux Capital, Polaris Venture Partners, Prospect Venture Partners, UOB Hermes Asia Technology Fund, and Venrock Associates.

Nanosys will use this funding for the ongoing development and manufacturing scaleup of products that incorporate its proprietary inorganic nanostructures with integrated functionality for multiple industries. Current product development programs include chemical analysis chips for pharmaceutical drug research, fuel cells for portable electronics, nanostructures for displays and phased-array antennas, nonvolatile memory for electronic devices, and solid-state lighting products.

"Nanosys is poised to enable a range of innovative products, transforming industries from electronics to life sciences," said Tom Peterson, general partner of El Dorado Ventures.

Electron Energy Corp. Receives ISO 9001:2000 Certification

Electron Energy Corp. (Landisville, Pa.), one of the world's leading producers of rare-earth magnets, has been approved for ISO certification by Det Norske Veritas. This certification acknowledges that EEC conforms to quality management system standards and has met a common set of industry benchmarks recognized by 145 countries around the world.

According to Michael H. Walmer, President of EEC, the attainment of this certification will enhance the company's business opportunities on both a domestic and international level. "The ISO/QS certification carries an assurance of continuous quality improvement and service, and gives current and prospective customers added confidence in our ability to meet their requirements," Walmer said.

NanoDynamics and Ames Goldsmith Establish Strategic Alliance in NanoSilver Powder

NanoDynamics (Buffalo, N.Y.), a leading nanotechnology organization and manufacturer of superior nanomaterials, announced in August 2005 that a long-term strategic agreement has been reached with Ames Goldsmith (Glens Falls, N.Y.) relating to the manufacture and sales of NDSilver™ nanosilver powders. In particular, the companies will collaborate on products targeted for key market opportunities in the electronics area. This strategic partnership builds upon NanoDynamics' proprietary expertise in nanomaterials technology and the proven customer support abilities of Ames Goldsmith, and is expected to accelerate the commercialization of new products with real benefits to customers. The commercialization of nanosilver powder opens many new opportunities, especially in the use of silver in novel deposition methods such as ink-jet and electrophoretic deposition at greatly reduced firing temperatures. □

Correction

An incorrect caption was included for an image on the cover of the December 2005 issue. The correct caption should read, "3. High-resolution transmission electron micrograph of a GaP nanowire grown at 500°C in hexane. Image reproduced with permission from F.M. Davidson, R. Wiacek, and B.A. Korgel, *Chem. Mater.* **17** (2005) p. 230."

https://doi.org/10.1557/mrs2006.13 Published online by Cambridge University Press