

THE ADHERENT

AI Technology's Newsletter
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AIT AWARDED TWO TOP SAFETY HONORS

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(Left) NJ Governor's OSHC Merit Award presented to AI Technology, Inc. (Right) AI Technology, Inc, CEO Kevin Chung, and NJ LWD Public Safety & Occupational Safety & Health Director, Howard Black.

On May 19th 2008, AI Technology was awarded the prestigious State of New Jersey Governor's Occupational Safety and Health Citation of Merit Award for its excellence in workplace safety. The honor follows a recent New Jersey Department of Labor and Workforce Development SHARP Award on April 25th, 2008, that exempts AI Technology from programmed inspections for two years by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). Both awards were given in recognition of AI Technology's achievement in maintaining one of the safest workplaces among all manufacturing companies in New Jersey.

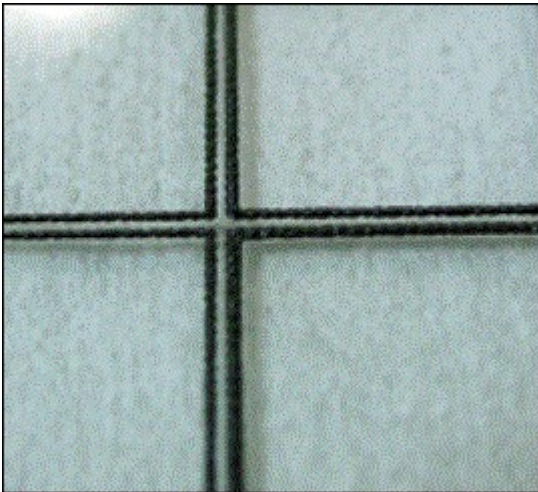
During April 25th's SHARP award presentation at AI Technology campus, Leonard Katz,

Assistant Commissioner and Howard Black, Director, Director both from the New Jersey Department of Labor and Workforce Development Division of Public Safety & Occupational Safety & Health spoke before the company's full staff: "We would like to congratulate and thank AI Technology for being a leader in safety awareness in the State of New Jersey. AI Technology is among the top, selective group of companies that have consistently demonstrated their dedication to the highest standards in workplace health and safety." This year's award makes it AI Technology's third SHARP in three consecutive years. There are fewer than fifteen companies in New Jersey that accomplished this feat this year.

SILVER-PALLADIUM SOLUTION

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AI Technology's ME8647, screen printed through 120 mesh on glass substrate

In a humid environment with electric potential, silver dissolves and bonds with oxygen and hydrogen. Ultimately, silver is deposited around the anode as an unwanted conductive growth (Ag_2O dendrites). The phenomenon is known as silver migration, and it poses a device reliability risk in thick film circuits and other sensitive electronic applications. To prevent silver migration from conductive epoxy, AIT offers SILVER-PALLADIUM alloy filled adhesives, ME8647 and ME8657. Based on the research and application results

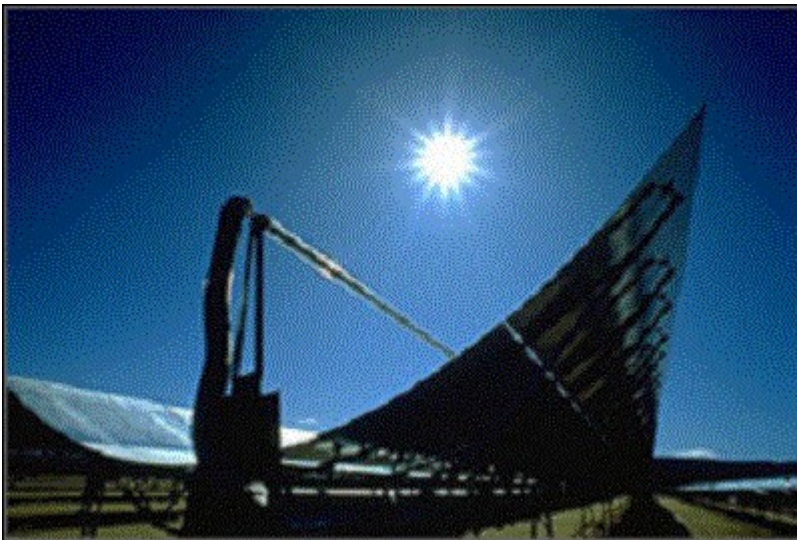
that show palladium as an inhibitor in silver migration, AI Technology's Silver-Palladium adhesives offer proven reliability and processing flexibility. The adhesives' thixotropy and viscosity are adjustable per application specification.

Both adhesives feature consistent performance in maintaining high electrical conductivity, high thermal conductivity, and high bond strength. ME8647 is a high modulus rigid adhesive while ME8657 is a low modulus flexible adhesive. The products can be dispensed through syringe or used with screen or stencil printing process. Please contact AI Technology for more information at 609-799-9388 or fill out our application analysis form at www.aitechnology.com/analysis/.

SOLAR INDUSTRY AND AI TECHNOLOGY

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Concentrator trough, Courtesy of Sandia National Laboratories

With gasoline price soaring, alternative energy is starting to look like the *only* alternative. A quick stop at the gas station leaves us dreaming for solar powered vehicles that can travel indefinitely with zero gallons of gasoline. Although, currently solar vehicles may be limited to intercollegiate engineering competitions, there has been steady development in using sunlight for electricity. In one approach, reflective troughs focus sunlight to heat liquid-filled pipes and drive generator turbines. Other approaches employ a variety of advanced photovoltaic materials: Amorphous silicon, CIGS (Copper Indium Gallium Selenide), and organic material such as Buckyballs (Fullerene) are used to convert sunlight directly into electricity. Although the approaches differ, all solar technologies have a shared requirement - reliability.

Solar energy applications must perform under rigorous thermal and moisture cycles. From binding large panels to encapsulating circuits with potting materials, thermal and stress management challenges exist in all levels of packaging; adhesive performance becomes a crucial factor in performance and reliability of the device. Ultimately, adhesive companies have a responsibility to ensure the application's reliability through close cooperation with the device engineers. In 2008, AI Technology began an initiative to work toward advancement of the solar energy industry: AI Technology's engineers are committed to the advancement of the solar industry by providing the most reliable adhesives and materials tailored to each unique, confidential solar applications specification. For application analysis, please contact AI Technology through web at <http://www.aitechnology.com/analysis/>.

ANISOTROPIC (Z-AXIS) CONDUCTIVE MATERIALS

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Kevin Martin, examining screen-printed pattern. AI Technology, Inc

Don't have time to solder each separate lead to its pad? Need a fast and simple way to attach your Device to its leads? AI Technology's Z-Axis material may be just the right product for you. AI Technology offers patented technology to provide materials that are electrically insulating in the X and Y-axis, but highly conductive in the Z-axis. Ideal for flip-chip die attach, and connector replacements, these materials are easy to apply. Simply place some of the material between your device and cure with a little pressure.

AI Technology's Anisotropic materials have a X-Y Dielectric Strength of over 300V / 0.005" with a less than 5 Milliohms / mm² Z Axis contact resistance. The materials are translucent to allow for easy alignment, and our fine pitch versions are capable of handling conductor pad gap separation down to 0.001". AI Technology's Z-Axis materials are available as epoxy or thermo plastic, in films or pastes, rigid or flexible depending the customer specification.

Send us an email, give us a call at (609) 799-9388, or fill out a web form at <http://www.aitechnology.com/analysis/> and we will produce the right product and solution to meet your needs. Simplify your assembly with AI Technology's materials, and excellent customer support.

AI Technology: We make what you need.

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