

TO: Steve Baxter

Interoffice
Communication

FROM: T. G. Grumbles
DATE: Dec. 28, 1989

VISTA

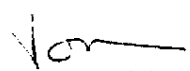
SUBJ: ATTACHED ARTICLE

In response to your first two questions, yes, asbestos is effectively banned in the future. It's anybody's guess what the impact on SiC whiskers potential use might be. There are some significant differences between the two now.

1. SiC health effects are not well known or widely known. Specifically, there is no significant human health experience with SiC as there is for asbestos. Asbestos worker disease is well documented.
2. Asbestos has been specifically regulated for many years by multiple agencies such as OSHA and EPA.
3. The use conditions and applications and, therefore, potential worker and general population exposure potential is significantly different. Based on what I know about SiC, it won't be used in large amounts for spray on insulation, etc., but more for "high-tech" uses. This reduced exposure potential scenario would be significant in similar governmental reviews and actions.

However, all of these issues ignore the potential emotional factors that would impact any substance that was compared to asbestos in terms of toxicity. As we've seen in recent years, those type of issues can have more impact than scientific ones.

That's the best I can do at this point to answer your questions. Let me know if you'd like to discuss further.


T. G. Grumbles

bko

Attachment

cc: Greg Hoenes

VVV 000007369

Steven L. Baxter

VISTA

To Tom Grumbles

Date 12-22-89

What does this mean? Is
asbestos effectively banned in
the U.S.? What are
the ramifications for SiC
whiskers, which appear to be
as bad as asbestos?

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Report on Technology Transfer Act

Secretary of the U.S. Department of Commerce Robert Mosbacher recently sent a report to President Bush and to Congress analyzing the success of the Federal Technology Transfer Act of 1986. This act gave federal laboratories the opportunity to sign cooperative research and development agreements (CRADAs) with industry.

The laboratory/industry arrangements are designed to help U.S. industry take advantage of the \$63 billion the federal government spends annually on research and development. By the end of 1988, 111 CRADAs had been signed; and the report predicts that by the end of this year, the number of arrangements and agencies involved will rise dramatically.

The report indicates that barriers still exist in the transfer of technology, including the hesitancy of industry to create cooperative ventures due to concerns that proprietary research may be made available to foreign and domestic competitors (under the Freedom of Information Act). The report found that in order to encourage the use of laboratory resources, agencies must perform more industry outreach. The report also found that incentives to encourage innovation by government scientists are working better than anticipated.

For a copy of the report, "The Federal Technology Transfer Act of 1986: The First Two Years," contact Department of Commerce Publication Department, 202/377-5487.

Natural Gas Decontrol

President Bush has signed P. L. 101-60, legislation that will remove all natural gas price controls by 1993. Gas not under contract will be decontrolled immediately.

The bill lifts controls fully for the first time since 1954. Natural gas decontrol will, most likely, lessen U.S. dependence on foreign oil, encourage new production of natural gas in this country, and lower prices of natural gas. Since partial decontrol took effect under the 1978 Natural Gas Policy Act, natural gas prices have dropped, proving that full decontrol will lower prices.

Technology Transfer Legislation Proposed

Senators Jay Rockefeller (D-WV) and Pete Domenici (R-NM) have both proposed amendments that would affect technology transfer.

The Senate Committee on Commerce, Science, and Transportation has approved two amendments to the Technology Administration Authorization Act, proposed by Senator Rockefeller, that would aid technology research and development. The first amendment asks for a report from the Office of Science and Technology Policy to Congress on the distribution of federal research and development funds to states.

The second amendment provides "seed money" for private-sector research on advanced materials. This amendment adds advanced ceramics and composite materials to the National Institute for Science and Technology's Advanced Technology Program. Rockefeller states that, "For the U.S. to take the lead

in this multibillion dollar industry, we need to invest in civilian R&D. Providing federal dollars as seed money for private sector research efforts in advanced ceramics and composites, should help spur the formation of research in this critical field."

For more information, contact Liz Rose, Office of the Honorable Jay Rockefeller, Washington, DC; 202/224-6101.

Senator Domenici introduced the "Department of Energy National Competitiveness Technology Transfer Act of 1989" as an amendment to the DOD Defense Authorization bill (S 1352). The amendment would direct the Secretary of Energy to develop a "national competitiveness mission" for DOE's national laboratories.

The purpose of the "national competitiveness mission" would be to increase the transfer of technology from the national laboratories to industries and universities by increasing the opportunities for collaboration in areas of "significant economic potential" through improved policies and regulations.

The amendment is expected to go into conference early this fall. For more information, contact Cooper Schenck, ACerS Washington headquarters; 202/783-5922.

New IARC Scientific Publications

Two new IARC scientific publications have been released. The first, "Non-Occupational Exposure to Mineral Fibers" (IARC Scientific Publication No. 90), focuses on the carcinogenic risk to the general population from environmental exposure to mineral fibers.

The second publication, "Occupational Exposure to Silica and Cancer Risk" (IARC Scientific Publication No. 97), gives the most recent information about epidemiological studies that provide more evidence on the subject of silica exposure and lung cancer.

Both publications can be ordered by calling Oxford University Press; 201/796-8000.

Asbestos Final Rule Activity

The Environmental Protection Agency issued its final rule on asbestos under section 6 of the Toxic Substances Control Act (TSCA) to prohibit future manufacturing, importation, processing, and distribution in commerce of asbestos in virtually almost all products. The rule is being issued to reduce the "unreasonable" health risks to humans exposed to products containing asbestos.

The rule requires that asbestos-containing products that are subject to the final rule bans be labeled "to promote compliance with and enforcement of the rule." Limited exemptions from the ban on commercial asbestos may be granted by the EPA. For further information, contact Michael M. Stahl, TSCA Assistance Office, Office on Toxic Substances, Environmental Protection Agency, Room EB-44, 401 M St., S.W., Washington, DC 20460; telephone 202/554-1404.

Steven B. Hellem

VVV 000007371

ACerS Washington Representative

Telephone: 202/783-5922

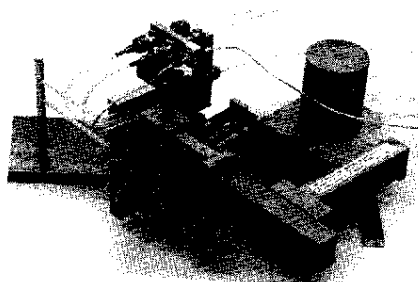
Volume 7, No. 2 Materials Testing Edition

MTS® Testing News

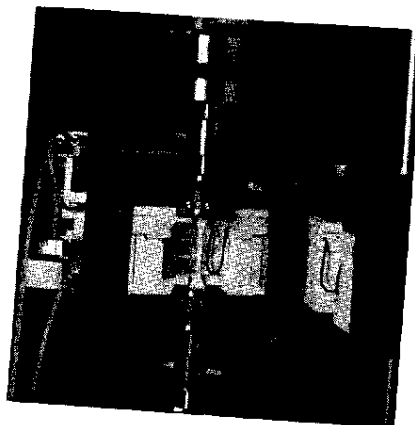
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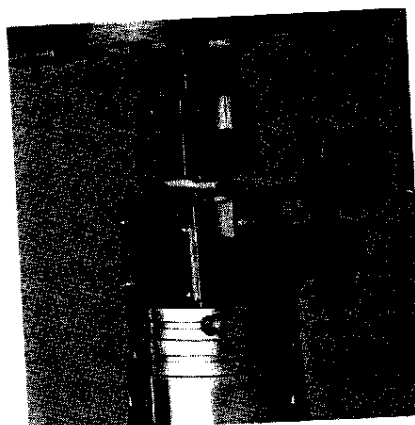
MODEL 686.03 CERAMIC TENSILE GRIP — Only 18 lbs. per grip; this device features an easy-to-use two-piece collar, a patented floating piston for minimal bending strain and eight times fewer moving parts than other designs.



MODEL 632.59 AXIAL EXTENSOMETER — Designed for testing ceramics and other materials at very high temperatures, this precision measuring device is water-cooled and performs at up to 1,600°C (2,900°F). Its many features include very low specimen contact force and activation force, and unsurpassed operating frequency, hysteresis, linearity and travel compared to similar devices. Versions are available for 2,500°C (4,500°F).



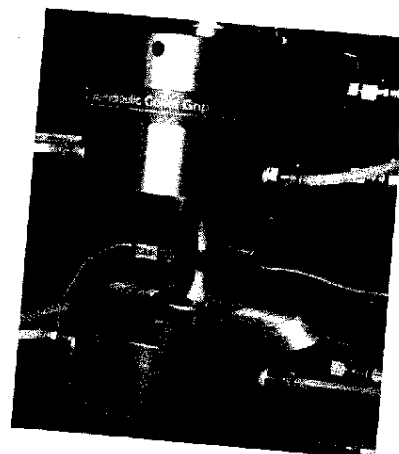
MODEL 657 HIGH TEMPERATURE FURNACE — This unit offers a maximum temperature of 1,600°C, and works with three and four point bend fixtures, compression platens, tensile grips, and extensometers. Heating elements are durable, fast-heating Super 33 Kanthal®. Available in a long or a short version (shown), the long version (225mm heated length) features extension rods to support the specimen in the heated environment.



MODEL 642.05 BEND FIXTURE — Designed for three and four-point bend testing, the 642.05 significantly reduces contact stresses

by using rollers which are free to move about both axis of the specimen. This gives you more accurate, undistorted flexural test data at temperatures up to 540°C (1,000°F). For temperatures up to 175°C (350°F), the extremely versatile Model 632.06 Extensometer (shown) measures specimen deflection.

For bend testing with minimal contact stresses at temperatures up to 1500°C (2700°F), MTS offers the Model 642.85 Bend Fixture. Designed for tests on a variety of materials, it easily accommodates sintered or ground samples and can be ordered specifically for testing to MIL Spec. 1942, Specimen B or JIS 1601 Standards.



MODEL 646 HYDRAULIC COLLET GRIP — Not only does the 646 offer the best repeatable alignment of any fully reversed tension/compression grip on the market, it also is the easiest to use. Just slide the specimen into the smooth collet — no bolts or collars to secure. With optional parts, it easily handles tough axial-torsional applications or fracture mechanics testing. And water-cooling is available for tests using induction heating.

Every day, new developments in the exciting world of advanced ceramics and composites are studied using MTS test systems to obtain accurate, meaningful information. The Model 810 Test System is one such system you'll find easy to configure for advanced ceramics testing, using the components shown above or the many others that are available.

And not only can we provide the technology you'll need to test these materials for critical and traditional

applications, but our salesman and service engineers are committed to giving you the best support in the business.



MTS SYSTEMS CORPORATION
BOX 24012, MINNEAPOLIS, MINNESOTA 55424
TELEPHONE 612-937-4000 TELEX 29-0521 MTS SYSTEM ENPE

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Request for
Facsimile Transmission

VISTA

DATE 12-29-89

FROM

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TO

NAME <i>GENE KOSINSKI</i>	PHONE NO.
DEPARTMENT <i>COLLOIDS, INC.</i>	
LOCATION (CITY) <i>NEWARK, N. J. 07114</i>	

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