



## **Dr. Donald A. Shockey**

See:

<http://www.sri.com/psd/staff/shockey.html>  
<http://www.sri.com/psd/poulter/staff/shockey.html>  
<http://www.worldcat.org/identities/lccn-n88-193047>  
[http://en.scientificcommons.org/donald\\_a\\_shockey](http://en.scientificcommons.org/donald_a_shockey)  
<http://www.sri.com/news/releases/05-25-06.html>

Director, SRI International's Center for Fracture Physics  
(SRI International was founded as the Stanford Research Institute in Menlo Park, California in 1946)

Dr. Donald A. Shockey is an internationally recognized expert in fracture of materials and structures, and an authority on failure under impact and explosive loads. In his 38 years at SRI he has directed over 350 research projects for government and industry and is currently leading problem-solving efforts associated with the following:

1. Astronaut gloves. Determining how high-strength fabric gets abraded and torn during space walks and what can be done to preclude glove damage.
2. Stent for peripheral arteries. Devising mechanical tests that mimic loads imposed by blood vessels to enable design of fracture-resistant stents.
3. Transparent armor. Assisting development of new glass-based materials and new structural designs for more weight-efficient windows on Humvees and military trucks.

4. Solder joint reliability. Understanding, measuring, and modeling fatigue crack initiation and propagation in electronic components.

5. Failure prognostics. Developing and applying advanced fractographic methods to generate the ability to predict future performance and remaining useful life of aircraft, bridges, and pipelines.

6. Failure analysis. Determining root cause and providing expert testimony for equipment failures such as rotor hub cracking in a Chilean power plant.

Dr. Shockey joined SRI International in 1971 after earning a doctorate in Materials Science at Carnegie-Mellon University and completing a 3-year post-doctoral appointment at the Ernst-Mach-Institut and the Institut für Werkstoffmechanik in Freiburg, Germany. His special research interests are high strain-rate failure and the role of microstructure on crack initiation and growth.

Dr. Shockey has published more than 150 technical articles, holds several patents, and serves on the NASA panel of Materials Experts. He is an Institute Fellow, a Fellow of ASM International, the Year 2000 recipient of the John S. Rinehart award for pioneering work in the field of dynamic fracture, and the 2006 recipient of the Murray Medal for excellence in experimental mechanics.

A long-time ski patroller, he enjoys winter mountaineering, backpacking, and ocean diving.