



Sandia National Laboratories

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Dr. Douglas Ruby had a long and productive career of over 22 years at Sandia National Labs. He received several Sandia Awards for Excellence for his many significant technical accomplishments in photovoltaics since he began his employment for Sandia Corporation in 1985. Dr. Ruby was initially assigned to Sandia's Photovoltaic Cell Research Division working as a member of the technical staff. In 1999, Dr. Ruby was promoted to Principal Member of the Technical Staff (PMTS) in the PV Systems Applications Department and later the Solar Technologies Department. In that role, he was generally responsible for compound semiconductor and silicon photovoltaic (PV) cell design, fabrication, and performance analysis.

During his employment at Sandia, Dr. Ruby was the team leader of a PV cell development team, responsible for leading an interdisciplinary team and operating a semiconductor fabrication facility that resulted in the world's first 20% efficient silicon concentrator solar cell. He was also Principal Investigator of two Laboratory Directed Research and Development (LDRD) projects in silicon solar cell processing, including the use of plasma-enhanced chemical vapor deposition for low-temperature bulk and surface passivation and reactive ion etching for multicrystalline silicon texturization. He was actively involved with government/industry consortia and university collaborations relating to solar cell research and development. Accordingly, he worked with many of the largest U.S. manufacturers of PV cells to optimize new manufacturing processes and improve product performance.

While at Sandia, Dr. Ruby authored or coauthored over 50 articles in conference and peer-reviewed journal publications. He was an inventor on five patents related to silicon solar cell processing granted by the U.S. Patent and Trademark Office. His work was featured on the front page of the Sandia Lab News in 2005. He was invited to and participated on the conference committees of several major international scientific conferences in photovoltaics. He received an award from the US Department of Energy for his excellent service in the national interest.

Marjorie L. Tatro