Recognizing and honoring Russ Dupuis for being awarded the National Medal of Technology, presented at the White House by President Bush on November 6, 2003.

Before we could schedule a reception honoring him for that award, he received the Bardeen Award from The Minerals, Metals, and Materials Society in Charlotte, N.C. on March 16 – highest honor TMS bestows. Congratulate Russ on this honor as well.

Introduce Roger Webb for comments

Introduce Jean-Lou Chameau for comments

The comments of Roger Webb and Jean-Lou Chameau are indicative of why Russ Dupuis was chosen for the National Medal of Technology.

National Medal of Technology honors the nation’s leading inventors and innovators whose creativity and ingenuity have enhanced the nation’s global competitiveness.

According to President Bush, criteria for Medal recipients:
- High achievement in pioneering research and innovation
- Set standard of excellence
- Are widely admired by peers
- Set outstanding example for next generation

Dupuis won the award as one of a team of three: Nick Holonyak, Jr. of the University of Illinois, Urbana-Champaign, who was Russ Dupuis’ PhD advisor in the early 70s, and M. George Craford of LumiLeds Lighting in San Jose, CA.

Recognized for “contributions to the development and commercialization of light-emitting diode technology, with applications to digital displays, consumer electronics, automotive lighting, traffic signals, and general illumination.”

The typical light bulb converts only a very tiny fraction of its energy to light – vast majority of it is wasted as heat. Light-emitting diodes (LEDs), in contrast, focus all their energy on light. As the technology becomes better developed and less expensive to use, we will see a wide variety of applications. Will change all types of lighting across the board, from dashboard lights in cars to operating rooms in hospitals.

Holonyak invented the first visible LED before becoming Dupuis’ PhD advisor. Dupuis developed a process known as metal-organic chemical vapor deposition, which boosts the light output of a semiconductor and has become the dominant technology worldwide for the production of lasers and LEDs of all colors.
From President’s remarks in presenting the Medals: “All the great achievements we honor today are the sum of individual effort. And when we speak of American creativity and American ingenuity, we’re speaking of men and women like our National Laureates of Science and Technology. They have freely accepted the toil of overcoming challenges. They have put their considerable gifts to good purpose. Their fellow Americans are grateful to them; all humanity is in your debt.”