Novel Photoconductive Decay Measurement System

Drs. Richard Ahrenkiel and Donald Dunlavy
Department of Metallurgical and Material Engineering

**Description:** This invention provides a nondestructive, contactless means to measure the recombination of lifetime of a wide range of semiconducting and photoconducting materials. The device exceeds the performance and range of applicability of existing commercial products. It utilizes a novel system of radio frequency coils that allow for rapid data acquisition time with no contact of the sensitive photovoltaic material.

**Potential Areas of Application**
- Photovoltaic industry
- Microelectronic industry
- Optoelectronic industry

**Main Advantages of this Invention**
- Fast data acquisition time.
- Provides a non-destructive means of measuring the lifetime of a variety of materials
- Performance exceeds those of current methods
- Has a greater range of applicability than the current method

**Intellectual Property Status:** Provisional patent filing pending

**ID number:** 09001

**Opportunity:** We are seeking an exclusive or non-exclusive licensee for marketing, manufacturing, and sale of this technology.

**Contact**
William Vaughan  
Director, Technology Transfer  
Colorado School of Mines  
1500 Illinois Street  
Guggenheim Hall, Suite 314  
Golden, CO 80401  
Phone: 303.384.2555  
Fax: 303.273.3244  
Email: wvaughan@mines.edu