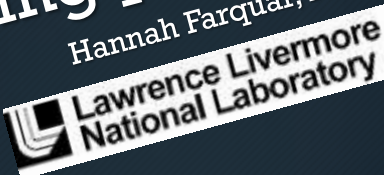




# marketing patents

Hannah Farquar, PhD



# telling the technology story

GOAL: tell the story of a technology to attract a partner to extend the story to "the end"—a product





- preparation
- creating marketing materials
- distributing marketing materials
- example

outline

preparation

- what exactly is being marketed?
- why is the technology being marketed?
- who is it being marketed to?

- patent assessment
  - what is claimed
- story of development
- market and patent landscapes



what is being marketed?

- types of claims
  - composition
  - apparatus/device
  - method/process
- comparing patent claims with technology story

patent assessment



THOMSON INNOVATION

- researching patents
  - USPTO
  - free online databases
  - Thomson Innovation & Innography
- researching markets
  - Frost & Sullivan
  - inventors

Dialog

INNOGRAPHY

FROST & SULLIVAN

market & patent landscape



- licensing
- sponsored research
- market application definition:
  - business plan development
  - market diligence

why are you marketing?

- companies
- industrial scientists & engineers
- students
- entrepreneurs & investors

Who are you marketing to?



creating the materials

<b>Background</b>	Technology Summary
<b>Description</b>	FULL DESCRIPTION
<b>Advantages</b>	Advantages FEATURES/BENEFITS
<b>Potential Applications</b>	APPLICATIONS OF TECHNOLOGY:
<b>Development Status</b>	State of Development & Availability
<b>Contact</b>	CONTACT

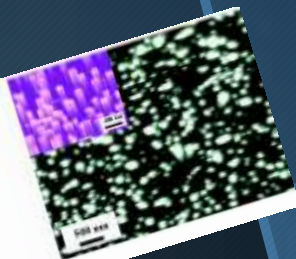
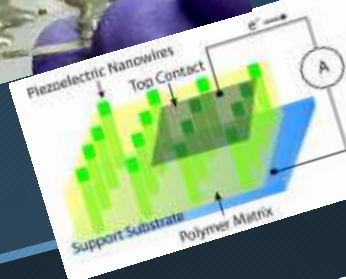
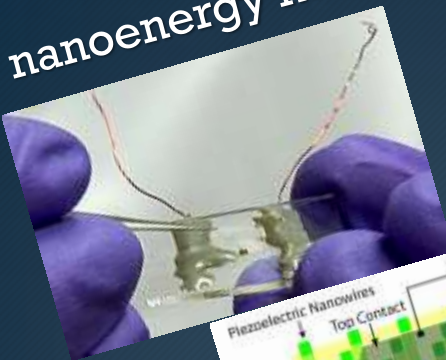
ipo.llnl.gov   Patent   RELATED MATERIALS   Inventors

# distributing materials

- direct marketing
- website: ipo.llnl.gov
- other options
  - iBridge
- market specific:
  - Energy Innovation Portal



# nanoenergy harvester



# an example

**SAE**  
**MEMO**  
**MEMO-AI-2008-01-001**  
**MEMO-AI-2008-01-001**  
**MEMO-AI-2008-01-001**

### Energy Harvesting Market

- Field is new and market is emerging.
- Wireless Sensor Networks are driving the energy harvesting market.
  - Eliminating batteries in sensor nodes- "perpetual energy"
  - Vibration-based devices (i.e. microactuators) are leading the market.

### Companies

- Start-ups are partnering with IC companies:
  - AdeptivEnergy: Ruggedized Laminated Piezo (RLP) technology to harvest energy and power TI ultra-low power MSP430 microcontroller (MCU) and RP technology for use in wireless sensors.
- Companies have other areas of sales:
  - Advanced Ceramics: ceramic materials for a wide variety of uses including energy harvesting.
- Many of the biggest players are in Europe.

### Micro vs Nano Energy Harvesting

- Nano-sized devices only in research stage
- Nanowires being used for energy harvesting:
  - "Power Shirt" (Qin, Nature, 2008)

# What are we marketing?

What is claimed is:

1. A nanowire, comprising: one or more nanostructures comprising a top end and a bottom end, wherein the nanostructures are at least partially embedded within a polymer layer, and means for generating power from the nanostructures.
2. The nanowire of claim 1, wherein the means for generating power comprises: a bottom electrode disposed on bottom end of one or more of the nanostructures; and a polymer layer into which the nanostructures are embedded.

# why and who?

- entrance into emerging market
- lab bench prototype requires technology development
- many verticals—further application definition

- students
- entrepreneurs & investors

- Marketed in two ways:
  - General energy harvesting using nanoconverter
  - Prototype developed as a batteryless chemical sensor

