



SCI Engineered Materials

An ISO 9001: 2008 Registered  
Provider of PVD Materials

# Corporate History

- ◆ SCI Engineered Materials was founded in 1987
- ◆ Initially, pursued R & D of high temperature superconducting materials and devices
- ◆ Capabilities led to production of advanced ceramic compositions for sputtering
- ◆ Evolved into a production company for PVD materials

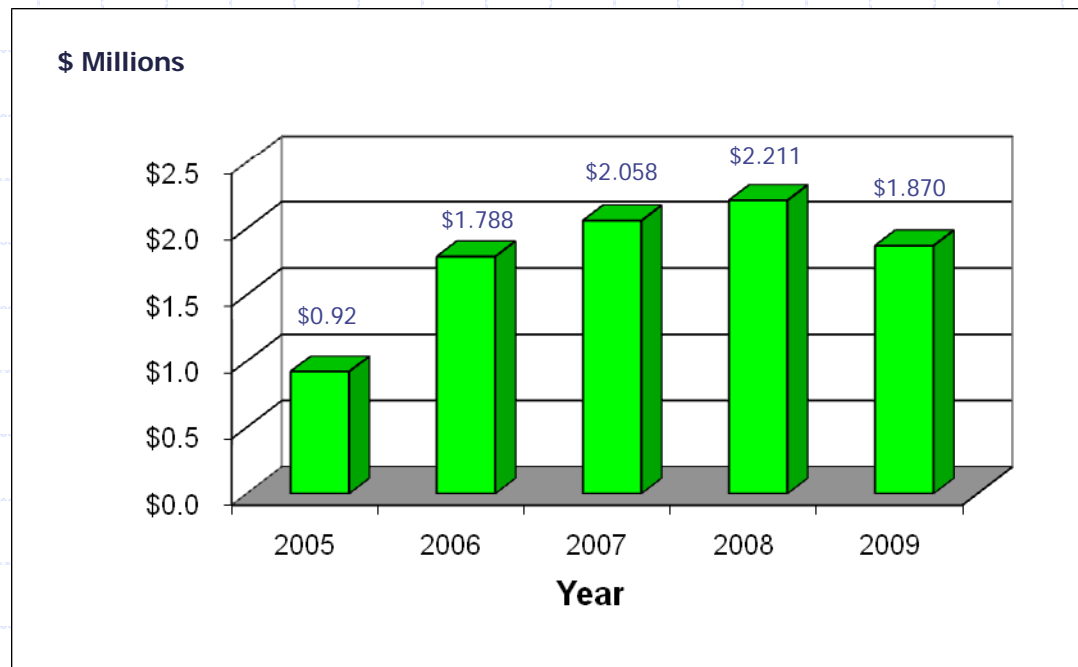
# The Company Today

- ◆ 32,000+ square feet of manufacturing and office space in Columbus, Ohio
- ◆ Traded on OTCBB exchange (symbol: SCIA)

# Quality

- ◆ Achieved ISO 9001:2008 registration in 2005
- ◆ Committed to providing customers with quality products and services in a timely manner.
- ◆ Dedicated to achieving and sustaining this goal by meeting the requirements of ISO 9001:2000 and continually improving the effectiveness of our quality management system.

# Gross Profit 2005-2009



# Management

- ◆ Dan Rooney – President and C.E.O.
- ◆ Jerry Blaskie – V.P and C.F.O
- ◆ Dr. Scott Campbell – V.P. Technology
- ◆ Mike Barna – V.P. Sales
- ◆ Nathan Hyst – Q.A. Supervisor
- ◆ Jeremy Young – Production Manager

# Full Service Materials Provider

## ◆ Ceramic and Metal Targets for PVD

- Custom oxide compositions
- Ceramic and metal powder densification
- Metal and ceramic machining

## ◆ Backing Plate/Bonding Services

- Backing plate fabrication
- Solder and elastomer bonding available

## ◆ Evaporative and Superconducting Materials

# Markets Served

- ◆ Media Storage
- ◆ Optic
- ◆ Photonic
- ◆ Photovoltaic
- ◆ Semiconductor
- ◆ Thin Film Battery



# Manufacturing Capabilities

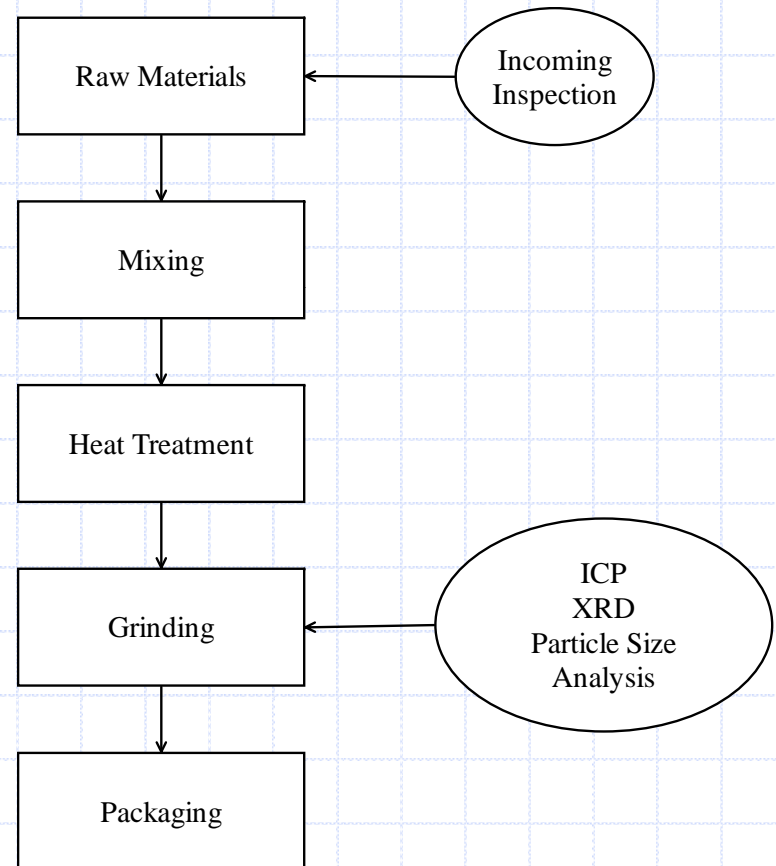
- ◆ Ceramic Powder Synthesis & Processing
- ◆ Forming
- ◆ Heat Treating
- ◆ EDM
- ◆ Ceramic & Metal Machining, Grinding
- ◆ Target Bonding



# Powder Processing

## ◆ In-House Processes

- Solid State Mixing
- Chemical Precipitation
- Sonically-Assisted Chemical Precipitation



# Analytical Capabilities

- Rigaku mini-flex X-Ray diffractometer
- Thermo Scientific XRF
- Micromeretics Sedigraph PSA
- Quantichrome Monosorb BET Analyzer
- Quantichrome Autotab Tap Density analyzer
- Linseis DTA
- LECO carbon analyzer
- Hitachi U-4100 Spectrophotometer
- Veeco Dektak 6M Profiler

# Quality Control Capabilities

- ◆ Zeiss Spectrum C99/II Coordinate Measuring Machine with Vi Scan Camera
- ◆ Sierra Instruments Ultrasonic Scanner (bond integrity testing)
- ◆ NuLine TR1000 Surface Finish Tester

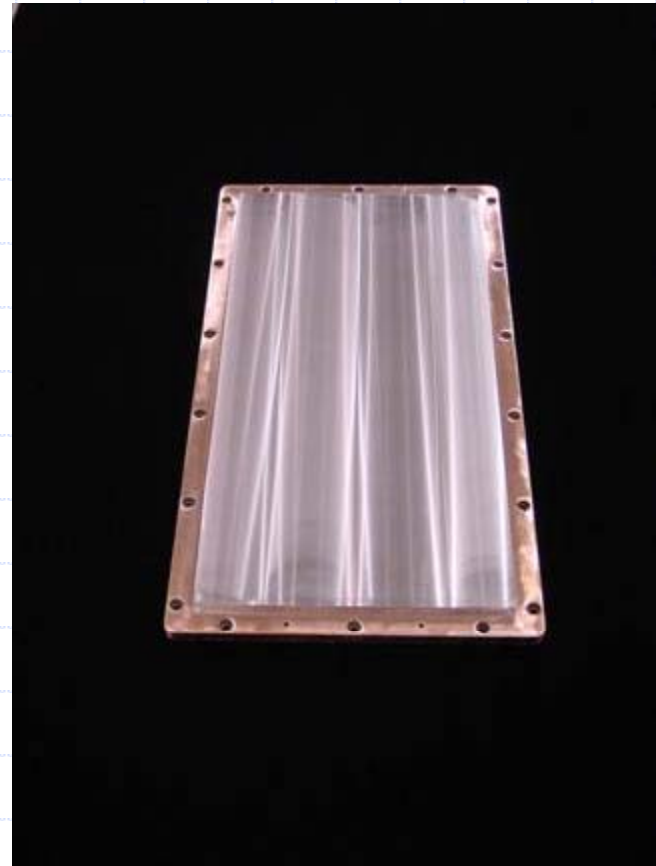
# Targets

## ◆ Compositions

- Metal
- Ceramic

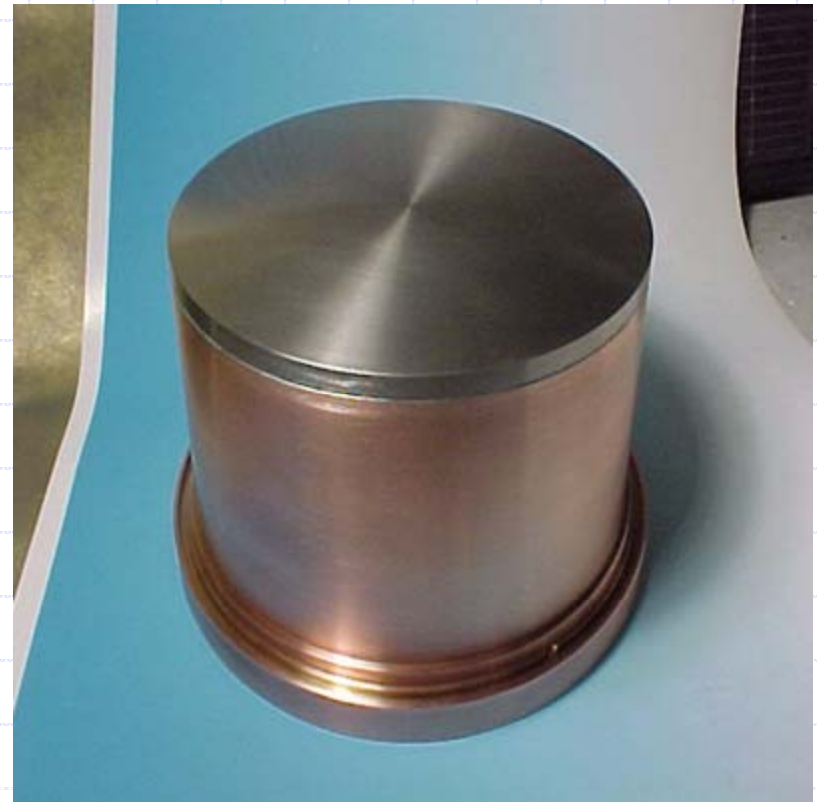
## ◆ Form Factor

- Planar
- Cylindrical
- Custom



# Backing Plates

- ◆ As specified by customer or OEM
- ◆ Materials
  - Copper
  - Molybdenum
  - Stainless Steel



# In-House Bonding Capability



# Evaporation Materials

## ◆ Metals

- Single Elements
- Rare Earth

## ◆ Alloys



# Vacuum Hot Presses

## ◆ One-Piece

- 20" dia. Rounds
- 14" squares



# Sputter System

- ◆ In-house sputtering capability
- ◆ Staffed full-time



# CMM Room

- ◆ Temp. controlled
- ◆ Humidity controlled
- ◆ Houses analytical instruments
- ◆ Target packaging



# CNC Mills



# CNC Lathe



# CNC Lathe



# Large Planar



# Equipment

## Small Grinder

