

**DEPARTMENT OF ENERGY
SMALL BUSINESS INNOVATION RESEARCH PROGRAM
AND
SMALL BUSINESS TECHNOLOGY TRANSFER PROGRAM
FY 2006 PHASE II AWARDS**

**TOPIC: SOLID STATE INORGANIC AND ORGANIC LIGHT EMITTING DIODES
FOR GENERAL LIGHTING**

Fairfield Crystal Technology, LLC
8 South End Plaza
New Milford, CT 06776-4200

A Novel Growth Technique for Large
Diameter AlN Single Crystal

Widespread use of high brightness light emitting devices for general lighting in offices and homes will save enormous energy consumed in lighting. But inadequate substrate materials hamper the development of highly efficient light emitting devices. This project will develop and commercialize aluminum nitride single crystal substrates that enable fabrication of highly efficient light emitting devices for solid-state lighting.