Center for Advanced Materials and Microelectronics

Dr. Gerald B. Stringfellow/University of Utah/SLC, Utah

Established as a center in 1988. This center provides unique testing facilities, technical expertise and problem solving assistance to Utah industry. Composite, ceramic and semiconductor materials are currently being explored for structural, aerospace and electronic applications.

Overview

Current State Contract	$150,000
Matching Funds	$1,605,704
Cumulative	$3,940,251
Industry Jobs Created	45
Center Related Jobs	20
Benefiting Utah Companies	6
Patents Applied	3
Patents Issued	1
License Agreements	--

Technologies

*Multiple layer epitaxy

*III/V compound chip design

*Ceramics as solid electrolytes and structural components

*Composite materials

*Organometallic vapor phase epitaxy

*Polymer property prediction models

Status

*Focus on III/V compounds, composites & ceramics estb. Advanced material for infrared detection in 8-12 micron range designed & disclosed to patent office

*Leading edge research in bismuth oxide fuel cells

*Close collaboration with local composites manufacturers

*Image analysis system for failure diagnosis available for use by local industry

*Unique combined thermogravimetry/mass spectrometry facilities available

Economic Impact

*Option on infrared detection chip license taken by Space Eng. Inc., Logan, Utah

*Center heavily involved helping move a branch of IBM, Philips or Hewlett Packard to Utah

*Ceramatec, Beta Power Inc. and Edo Western are successful small high tech ceramics firms

*Commercial sales of the Tripos "Sybil" stimulation program ($24,000) include Hercules BASF and B.F. Goodrich

*$100K grant from Exxon Chemicals for polymer modeling work