UNIVERSITY OF KENTUCKY

JUL 2 8 2004

Office of the Dean
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Lexington, KY 40506-0503
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July 22, 2004

Dr. Michael Nietzel, Provost
106 Gillis Building
University of Kentucky
Lexington, KY 40506

Dear Dr. Nietzel:

I am requesting your approval to change the name of the **Center for Micro-Magnetic and Electronic Devices (CMMED)** to **Center for Nanoscale Science and Engineering (CeNSE).** This name change will better reflect the ongoing research in the Center and the groups which are participating in the Center. I am attaching correspondence from Dr. Vijay Singh, Center Director, relative to the proposed name change. This name change was recommended by the faculty affiliated with the Center and has been approved by the faculty of the College of Engineering.

By copy of this letter, the proposal is being concurrently routed to Dr. Ernie Yanarella, Senate Chair.

I trust that you will be supportive of this proposed name change.

Sincerely,

Thomas W. Lester
Dean

Enclosure

cc: Dr. Singh
Dr. Yanarella

ACADEMIC ORGANIZATON AND STRUCTURE COMMITTEE REVIEW AND CONSULTATION SUMMARY SHEET

Proposal Title: Proposal to Rename the Center for Micro-Magnetic and Electronic Devices (CMMED) to the Center for Nanoscale Science and Engineering (CeNSE)
CMMED website at: www.engr.uky.edu/~cmmed

Name/email/phone for proposal contact: Vijay Singh, Ph.D., vsingh@engr.uky.edu; 257-3243

Instruction: To facilitate the processing of this proposal please identify the groups or individuals reviewing the proposal, identify a contact person for each entry, provide the consequences of the review (specifically, approval, rejection, no decision and vote outcome, if any) and please attach a copy of any report or memorandum developed with comments on this proposal.

Reviewed by: (Chairs, Directors, Faculty Groups, Faculty Councils, Committees, etc)	**Contact person Name (phone/email)**	**Consequences of Review:**	**Date of Proposal Review**	**Review Summary Attached? (yes or no)**
Center for Micro-Magnetic and Electronic Devices (CMMED) Faculty	Dr. Vijay Singh, Director Center for Micro-Magnetic and Electronic Devices (CMMED) 257-3243 vsingh@engr.uky.edu	Unanimous Vote to Change Name	November 5, 2003 (weekly meeting of CMMED faculty)	Yes (letter from Dr. Vijay Singh with attachment)
College of Engineering Faculty	Dean Thomas Lester, Ph.D. College of Engineering 257-1687 lester@engr.uky.edu	Unanimous Vote to Approve Name Change	November 25, 2003 (full faculty meeting)	Yes (letter from Dean Lester)
Senate Committee on Academic Organization and Structure	Kate Chard, Ph.D. 257-9338 kchar0@uky.edu			

(i:/faculty/Senate Summary Sheet for CMMED Name Change.doc)

UNIVERSITY OF KENTUCKY

MEMORANDUM

Department of Electrical and Computer Engineering
College of Engineering
453 F. Paul Anderson Tower
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Date: July 16, 2004

To: Dr. Thomas Lester
Dean, College Of Engineering

From: Vijay Singh,
Director, Center for Micro-Magnetic and Electronic Devices (CMMED)

Re: Proposal to change the name of CMMED

It is proposed that the name of the **Center for Micro-Magnetic and Electronic Devices (CMMED)** be changed to **Center for Nanoscale Science and Engineering (CeNSE).** Your help with the approval of this proposal will be appreciated.

Reason for name change:

The name needs to better reflect the ongoing activities in the center.

In its present form, CMMED is an interdisciplinary, user-cost facility that supports and promotes research in nanoscale science and engineering including bio-medical and opto-electronic devices, at the University of Kentucky and across the state. It enables nano-technology based research through open infrastructures and collaboration, provides important graduate and undergraduate educational opportunities, and supports the development of nano-technology related industry in Kentucky.

The center has supported the research of about 30 graduate research assistants and postdoctoral research associates from UK as well as about 20 undergraduate research assistants from UK and KSU.

Historical:

- CMMED was established in July 2001 with partial funding from National Science Foundation and the Kentucky EPSCoR program.
- At that time magnetic sensor work was a substantial part of the center activity.
- Over the last three years, research theme of the center has shifted to nano-scale research. At present nano-scale research dwarfs the magnetic sensor activity. For example, the center recently submitted a NSF-EPSCOR proposal, which is a fair reflection of its research thrust. The proposal is titled Nanoscale Fabrication for Electronic Devices, Chemical/Bio Sensors, and Advanced Materials, by Zhi Chen, Vijay Singh, Bruce Hinds, Todd Hastings, Lance Delong, Kozo Saito, Stephen Rankin, Fuqian Yang, Dibakar Bhattacharyya, Leonidas Bachas, Greg Gerhardt, Robert Lodder, and Tonlei Li. More details on this proposal can be found in the attached appendix.
- During their November 5, 2003, weekly meeting of CMMED, the center faculty voted unanimously (5-0) in favor of changing the name from CMMED to CeNSE.
- On November 25, 2003, the College of Engineering faculty voted unanimously, by voice vote, in favor of changing the name from CMMED to CeNSE.

APPENDIX

Nanoscale Fabrication for Electronic Devices, Chemical/Bio Sensors, and Advanced Materials

Zhi Chen[1], Vijay Singh[1], Bruce Hinds[1], Todd Hastings[1], Lance Delong[2], Kozo Saito[1], Stephen Rankin[1], Fuqian Yang[1], Dibakar Bhattacharyya[1], Leonidas Bachas[2], Greg Gerhardt[3], Robert Lodder[4], and Tonglei Li[4]

[1]College of Engineering, [2]College of Arts & Science, [3]College of Medicine, [4]College of Pharmacy

University of Kentucky, Lexington, KY

Shi-Yu Wu, Chakram Jayanthi, and Gamini Sumanasekeras

College of Arts & Science

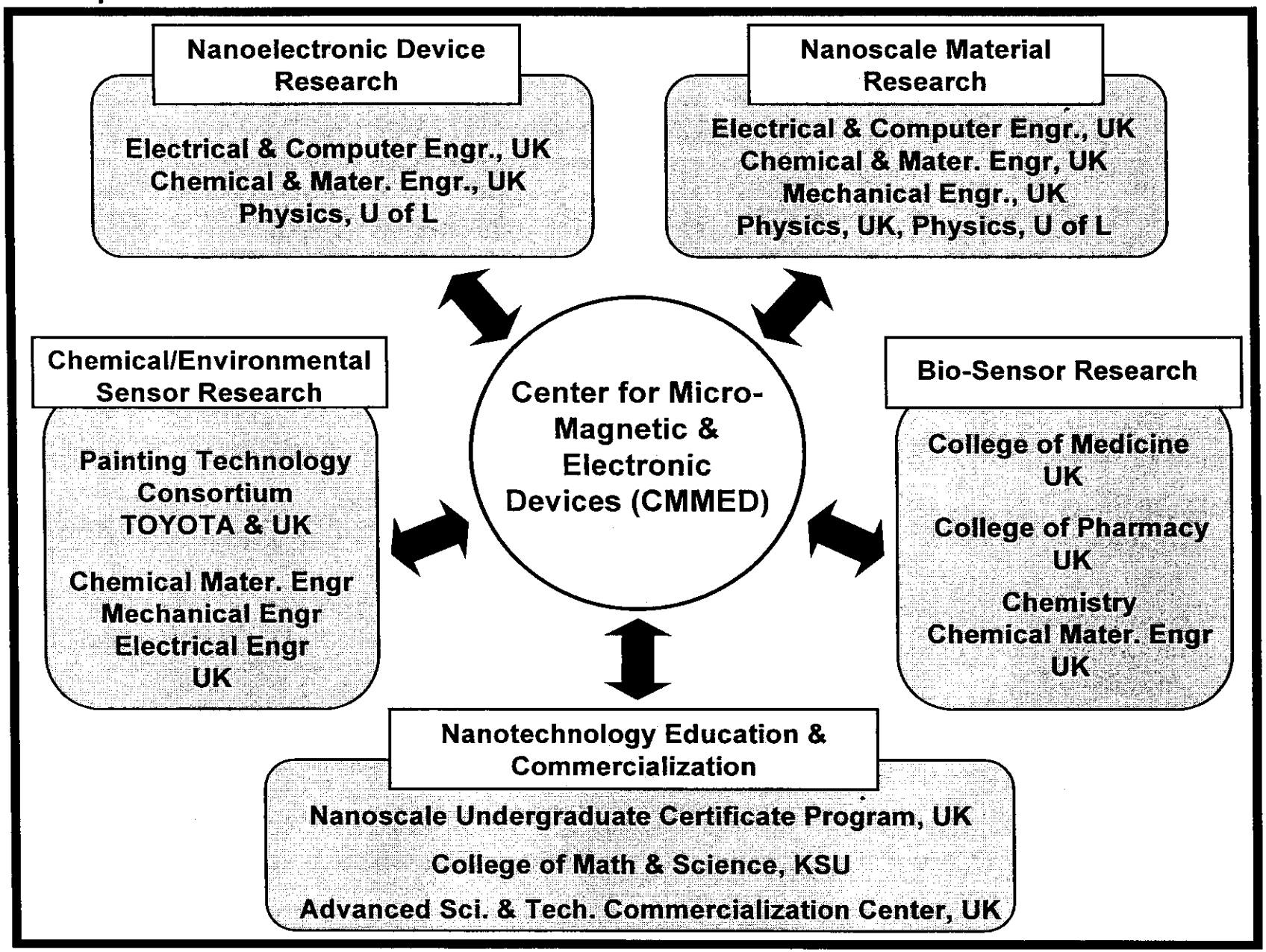
University of Louisville, Louisville, KY

Rony Shahidain

College of Math and Science

Kentucky State University, Frankfurt, KY

Pre-Proposal for NSF-EPSCoR Infrastructure



Strength of the Research Team

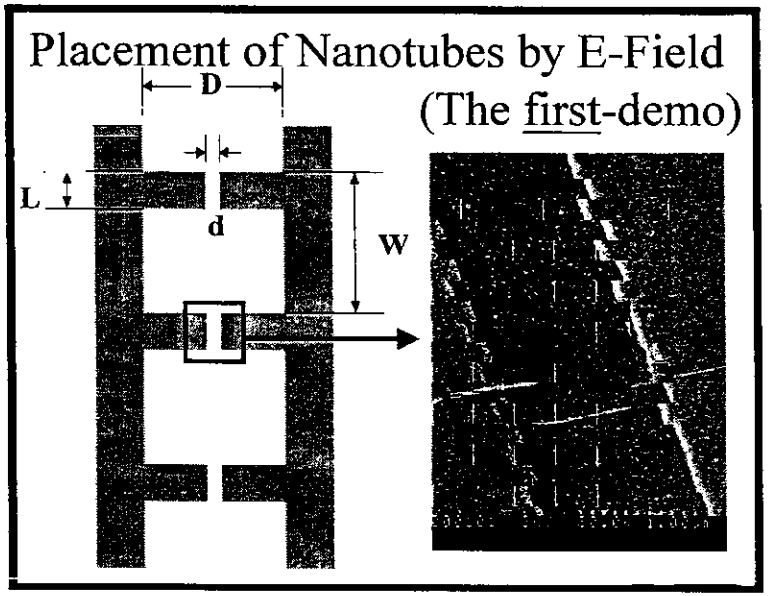
Four chair professors, one Fellow of AIChE, one Fellow of ASME, one NSF CAREER awardee, and one DOE Early Career Scientist and Engineer Awardee.

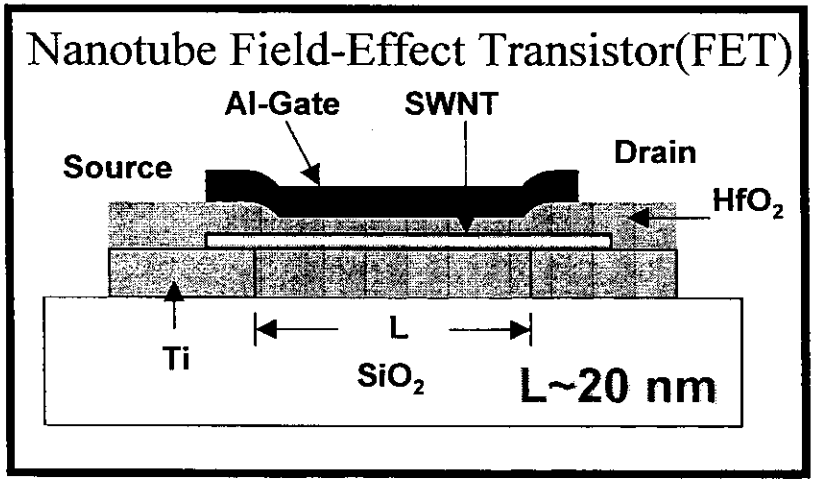
Total funding: $12M (28 research grants)

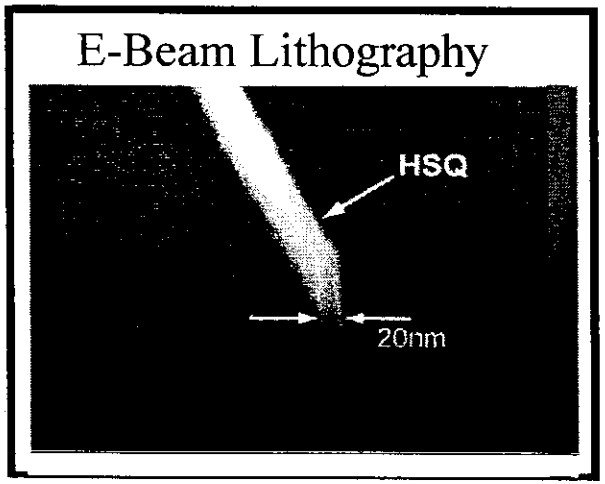
- NSF CAREER Award (Chen, $375,000)
- NSF NIRT grant (Rankin, $1.1M)
- TOYOTA Painting Technology Consortium (Saito, $1.7M)
- NSF IGERT grant (Bachas, $2.2M)
- NIEH Superfund Program (Bhattacharyya & Bachas, $1.2M)
- NIH funding (Lodder & Gerhardt, $1.5M)
- Numerous other grants

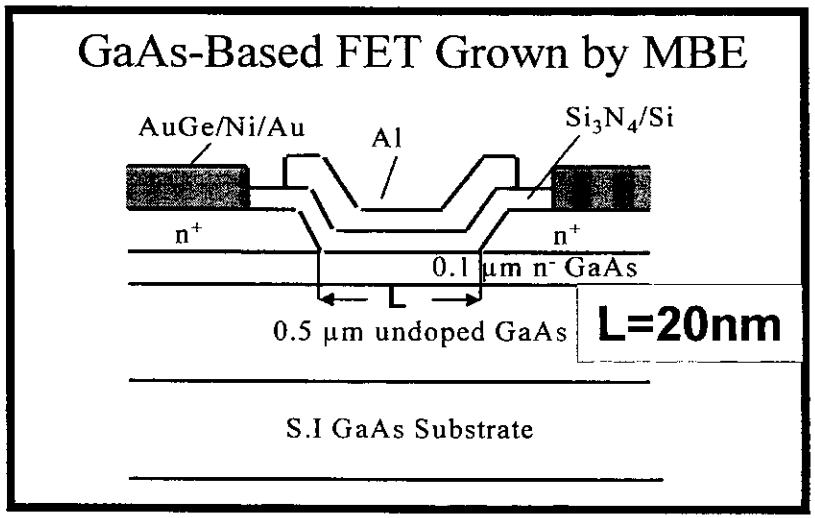
Nanoscale Electronic Device Research: High-Speed Transistors

(Chen, Singh, Hinds, Hastings, Wu, Jayanthi, and Sumanasekeras)



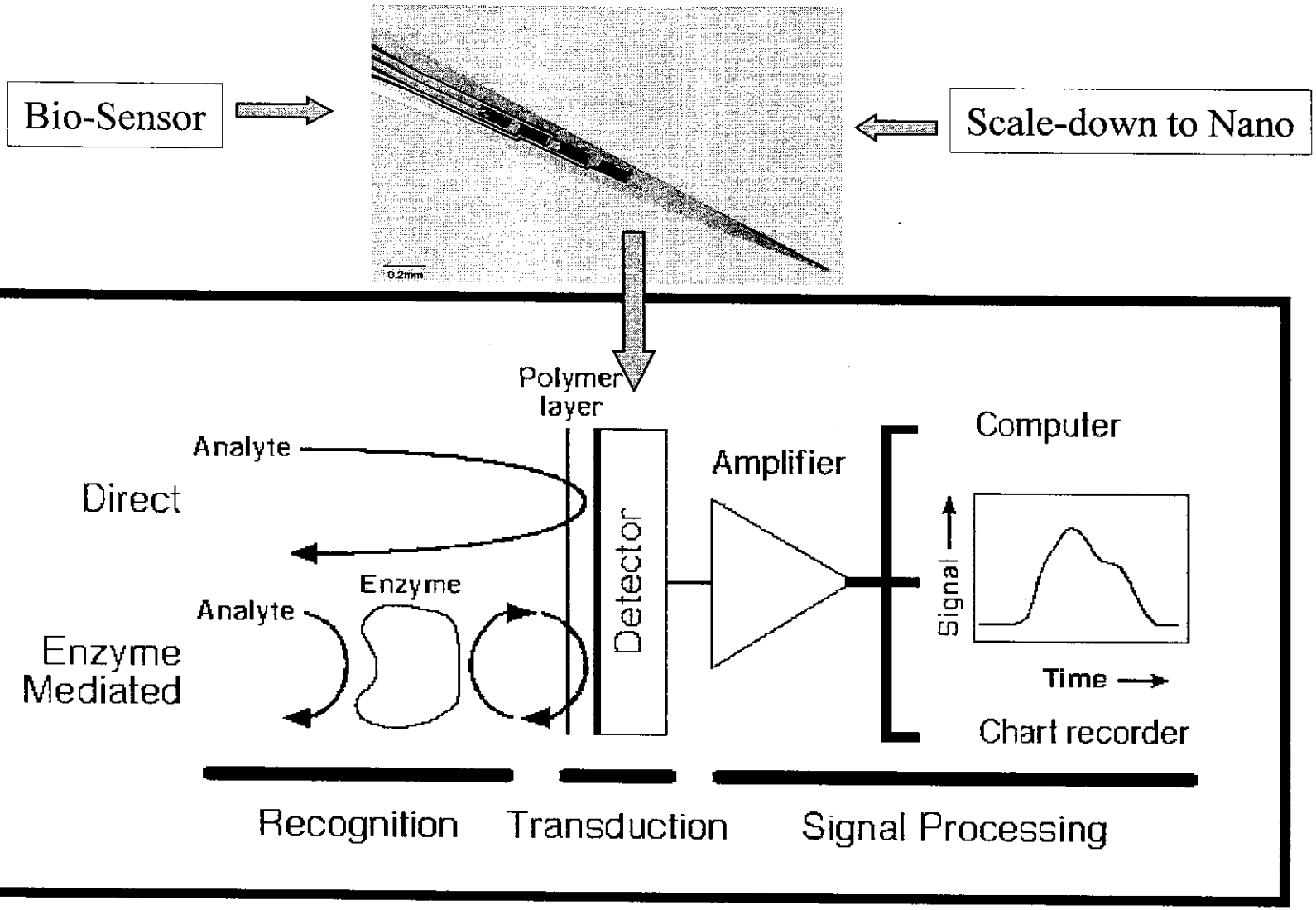






Bio-Sensor Research

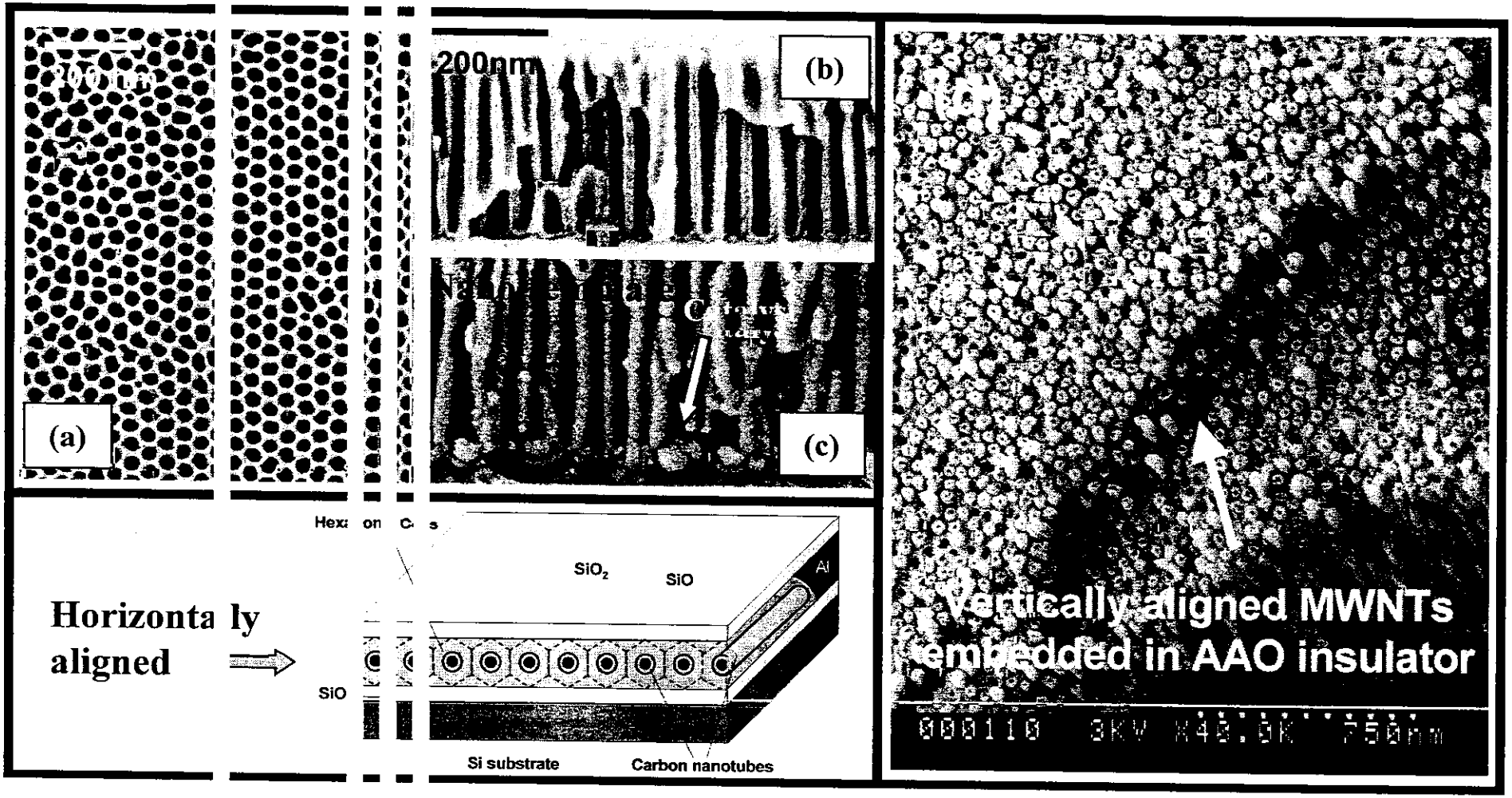
(Rankin, Bachas, Gerhardt, Lodder, Li, Hastings, Chen)



N anoscale Material Research

(Chen, Singh, D :L ong, Saito, Yang, Bhattacharyya, and Sumanasekeras)

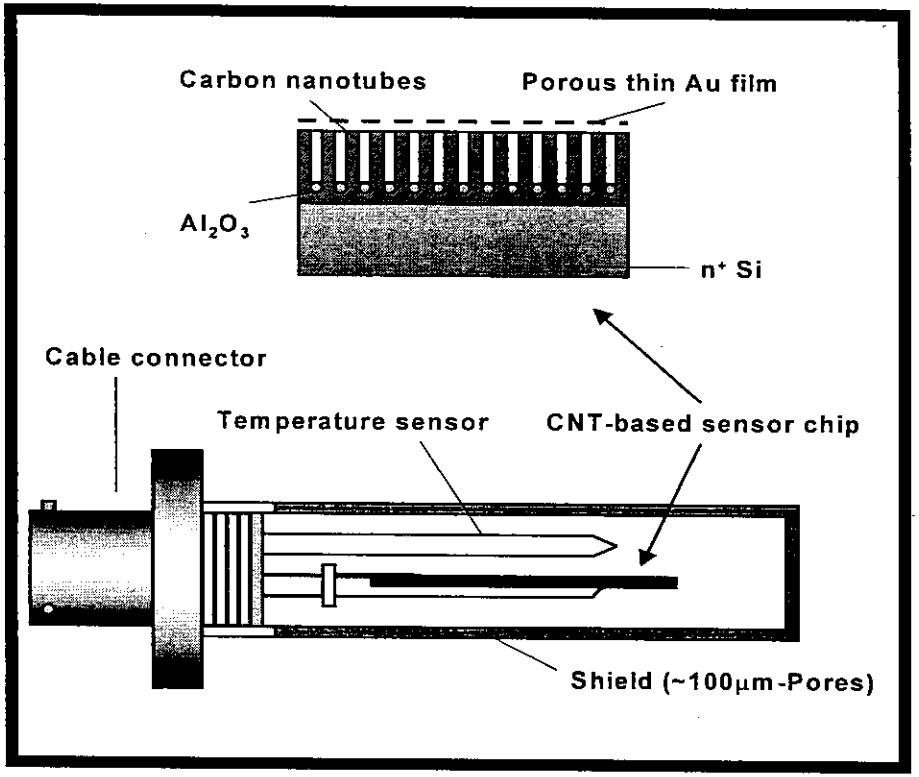
The fi st verti :a l aligned nanotubes on silicon substrates using templates



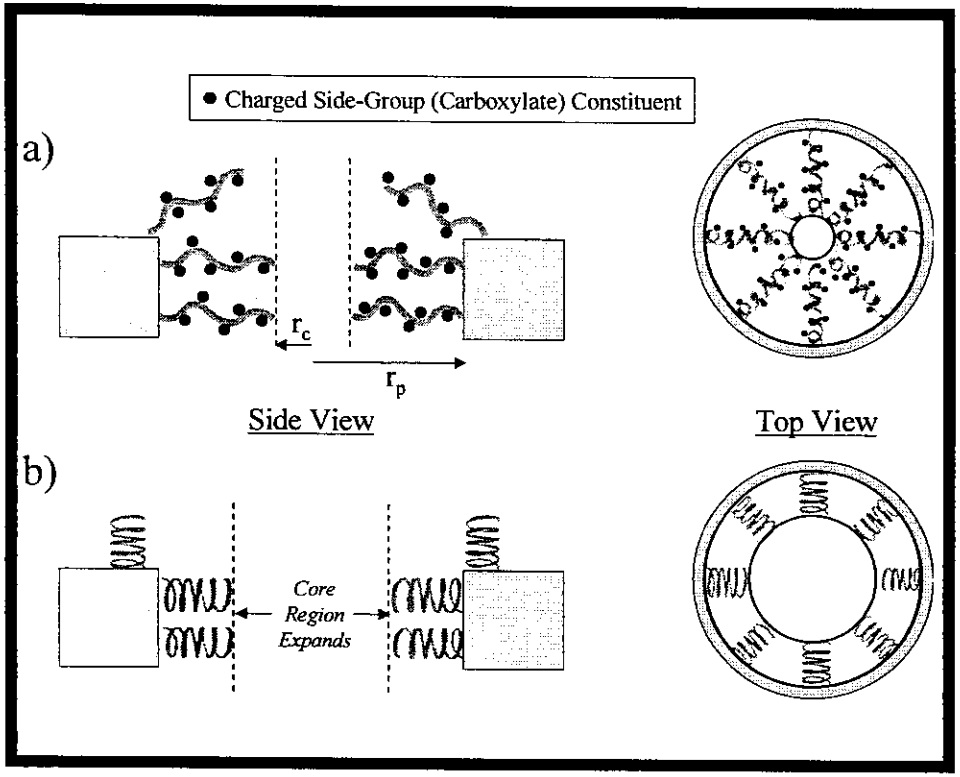
Chemical/Environmental Sensor Research

(Saito, Chen, and Bhattacharyya)

Carbon Nanotueb-Based Gas Sensors



Helix-Coil Transitions in Membrane Pores



New Mechanism for Improving Competitiveness

Innovative-Idea Committee (IIC)
------ Ideas and Proposal Writing

1. Assess innovative ideas

2. Push for groundbreaking results

3. Lead and/or help writing

- Large research center proposals
- Joint research proposals

CMMED facilities Support Nanoscale Education

New Programs and New Courses:

Nanoscale Engineering Certificate Program, funded by NSF NUE program

- EE 599: IC Device Fabrication, funded by NSF CAREER program
- MSE 599: Nanoscale Materials Characterization

Support of Students:

- Supported ~30 graduate research assistants and 5 postdoctoral research associates from UK
- Supported 19 undergraduate research assistants from UK and KSU

Note: Only a small section of students can access CMMED facilities because of our limited infrastructure.

Outreach: Open House, Engineering Day (E-day), Rogers Scholar program (high-school students).

Summary

Since its establishment, the Center has been playing an important role in supporting nanoscale research and education.

In order to improve the competitiveness of the Center at the national level, we have assembled a research team with strong track record.

With the added infrastructure and the innovative research plan, we firmly believe that we will be successful in securing large Center grants and other joint research grants.