

10:00:59

OCA PAD AMENDMENT - PROJECT HEADER INFORMATION

09/15/95

Active

Project #: E-21-Z70 Cost share #: Rev #: 2
Center #: 10/24-6-R8646-0A0 Center shr #: OCA file #:
Contract#: 9280001 Mod #: ADMIN. Work type : RES
Prime #: FFM266404 Document : PO
Contract entity: GTRC

Subprojects ? : N CFDA: NA
Main project #: PE #: NA

Project unit: ECE Unit code: 02.010.118
Project director(s):
LASKAR J ECE (404)853-9835

Sponsor/division names: UNIV OF HAWAII / NATURAL ENERGY INSTITUTE
Sponsor/division codes: 400 / 071

Award period: 950101 to 951231 (performance) 951231 (reports)

Sponsor amount	New this change	Total to date
Contract value	0.00	10,000.00
Funded	0.00	10,000.00
Cost sharing amount		0.00

Does subcontracting plan apply ? : N

Title: RESONANT TUNNELING & HETEROSTRUCTURE BIPOLAR TRANSISTOR CHARACTERIZATION

PROJECT ADMINISTRATION DATA

OCA contact: Ina R. Lashley 894-4820

Sponsor technical contact Sponsor issuing office

DR. JAMES YEE SHIRLEY FUJIHARA
(808)956-7576 (808)956-2290

THE UNIVERSITY OF HAWAII THE RESEARCH CORP OF UNIV OF HAWAII
DEPARTMENT OF ELECTRICAL ENGINEERING 2800 WOODLAWN DRIVE
455 HOLMES HALL SUITE 200
HONOLULU, HI 96822 96822 HONOLULU, HI 96822
E-MAIL/JYEE@SPECTRA.ENG.HAWAII.EDU E-MAIL/SHIRLEY@WILIKI.ENG.HAWAII.EDU

Security class (U,C,S,TS) : U ONR resident rep. is ACO (Y/N): N
Defense priority rating : NA NA supplemental sheet
Equipment title vests with: Sponsor X GIT
NONE PROPOSED

Administrative comments -

ADMIN MOD TO CORRECT "PERIOD OF PERFORMANCE" TO 12/31/95.

5175502

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

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NOTICE OF PROJECT CLOSEOUT

Closeout Notice Date 02/01/96

Project No. E-21-Z70_____ Center No. 10/24-6-R8646-0A0_

Project Director LASKAR J_____ School/Lab ECE_____

Sponsor UNIV OF HAWAII/NATURAL ENERGY INSTITUTE_____

Contract/Grant No. 9280001_____ Contract Entity GTRC

Prime Contract No. FFM266404_____

Title RESONANT TUNNELING & HETEROSTRUCTURE BIPOLAR TRANSISTOR CHARACTERIZATION_

Effective Completion Date 951231 (Performance) 951231 (Reports)

Closeout Actions Required:	Y/N	Date Submitted
Final Invoice or Copy of Final Invoice	Y	951204
Final Report of Inventions and/or Subcontracts	Y	_____
Government Property Inventory & Related Certificate	N	_____
Classified Material Certificate	N	_____
Release and Assignment	Y	_____
Other _____	N	_____

Comments_____

Subproject Under Main Project No. _____

Continues Project No. _____

Distribution Required:

Project Director	Y
Administrative Network Representative	Y
GTRI Accounting/Grants and Contracts	Y
Procurement/Supply Services	Y
Research Property Management	Y
Research Security Services	N
Reports Coordinator (OCA)	Y
GTRC	Y
Project File	Y
Other _____	N
_____	N

NOTE: Final Patent Questionnaire sent to PDPI.

Resonant Tunneling & Heterostructure Bipolar Characterization

Final Report
 Prepared For
 Dr. James Yee (Technical Contact)
 The University of Hawaii
 Department of Electrical Engineering
 455 Holmes Hall
 Honolulu, HI 96822

Progress

Complete Characterization has Been Carried for Resonant Tunneling Diodes, Resonant Tunneling Bipolar Transistors and Heterostructure Bipolar Transistors. All Results have been for the AlGaAs/GaAs material system and represent record results to date.

Based upon the cryogenic analysis, carried out from 18K to 330K, we have been able to optimize device structures for both cryogenic and room temperature operation. Detailed small-signal models have been developed and SPICE models are under development. Future work will focus on the development of device models for circuit applications and the noise analysis of such structures.

