

SALVARE

OK ✓

Admission 2013	5
Biotechnology	5
Bioinformatics	4
Computer Science	4
Biotechnology/Genetics/Biochemistry	4
Materials Science	2
Chemistry/Physics	2
Statistics/Math	
Academic Performance	5
With honors	4
1.5 up	3
1.9-1.6	2
2.0-2.5	
Institution	5
UP, ADMU, DLSU	4
UST, MSU, IIT, USC, MIT, SJU	3
Ateneo Schools, SU	2
Others	
Research Experience	5
With research experience in a research proj.	4
Individual thesis	3
Group thesis	2
Project Study	
Career Plans	5
Research-oriented	4
Industry and research	3
Teaching and research	2
Teaching /Industry	
Age	5
Below 40	3
40-45	
Category	5
Lateral	3
Regular	

$$28 \times 2 = 56$$

Action Slip

Reference No.
04/8/10-0019

[illegible]

Action Slip

[illegible]

Philippine Council for Advanced Science and Technology
Research and Development
Human Resources and Institution Development Division

Scholar's Thesis/Dissertation Progress Report

for the ☒ 1st ☐ 2nd ☐ 3rd ☐ 4th Quarter / Year 2010

THESIS/DISSERTATION TITLE: Bacterial adhesion performance of poly(tetrafluoroethylene) after surface modification using hydrogen and oxygen low-energy gas discharges	
GRANTEE: HERNANDO S. SALAPARE III	DEGREE PROGRAM: M.S. PHYSICS
DURATION: October 1, 2009 - April 5, 2010 (7 months)	
DATE STARTED: October 1, 2009	EXPECTED DATE OF COMPLETION: April 5, 2010
OBJECTIVES: - to treat the surface of PTFE materials using hydrogen and oxygen low-energy gas discharges - to determine the bacterial adhesion (E. coli) on the samples before and after different treatment parameters - to test the biocompatibility of the material	
SCHEDULE OF ACTIVITIES: Jan 2010 - oxygen treatment of PTFE samples Feb 2010 - characterization of H ₂ and O ₂ treated samples as well as the untreated sample (FTIR, SEM, CA) - bacterial adhesion experiments at N.S.R.I Feb 2010 - submission of thesis first draft Mar 24, 2010 - thesis defense April 5, 2010 - submission of thesis manuscript to the graduate office CS, UP Diliman	

RESULTS AND DISCUSSION: Both O_2 and H_2 plasma treatments modify the PTFE surface in morphology but only O_2 treatment modified the PTFE in chemical composition. Both treatments exhibited changes in the wettability of the samples at diff. I_d . H_2 treatment shows that lower I_d improved material hydrophobicity and higher I_d resulted in enhanced hydrophilicity due to the increased surface roughness and porosity of the material, while O_2 treatment shows that as the I_d increases, PTFE becomes more hydrophilic. The contact angle exhibited a lower *E. coli* adhesion or degradation within the range of 1.4° to 7.4° in 210 days after treatment. O_2 treatment exhibited a lower *E. coli*

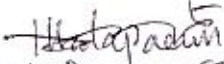
PROBLEMS ENCOUNTERED/PROPOSED SOLUTIONS: adhesion or compared to using hydrogen due to the incorporation of C-O and C=O bonds on the sample as well as the smoothing effect on the surface. The optimum range of surface free energy that exhibited the lowest *E. coli* adhesion is between 22 mN/m to 26 mN/m.

PROBLEMS ENCOUNTERED/PROPOSED SOLUTIONS: *Serratia marcescens* did not show the color we wanted so we change the bacteria to *E. coli* and we needed the help of Dr. Rivera and his team of the Institute of Biology for the protocol on handling *E. coli*. We performed optimization bacterial adhering tests to attain the correct parameters for the experiment.

REMARKS: (part)

- the thesis produced 2 publications (1 ISI-indexed journal & 1 book chapter)
- the thesis manuscript was submitted for publication to journal of adhesion science and tech and its under review
- a CV was attached to show the other accomplishment of the author
- part of the thesis was presented at SPP last 2009.
- the thesis of the author, his publications and academic performance were evaluated by the college and he was awarded as the MOST OUTSTANDING U.S. GRAD for the graduating batch 2010.

Prepared by:


HERNANDO S. SALVAPARE III
Grantee's name/signature

Graduate Core Courses Required

ORIGINAL PROGRAM of STUDY

Course No.	Course Title	Units	Grade	Sem/Year
Physics 251	Statistical Physics I	3	2.5	2nd/AY2007-2008
Physics 290	Graduate Colloquium	1	P	2nd/AY2007-2008
Physics 305	Graduate Elective	3	1.25	2nd/AY2007-2008
Physics 221	Classical Mechanics I	3	2.25	1st/AY2008-2009
Physics 241	Quantum Mechanics I	3	1.5	1st/AY2008-2009
Physics	Physics Teaching	1	Exempted	1st/AY2008-2009
Physics 242	Quantum Mechanics II	3	2	2nd/AY2008-2009
Physics/MSE	Graduate Elective	3	1	2nd/AY2008-2009
Physics	Physics Teaching	1	Exempted	2nd/AY2008-2009
Physics 290	Graduate Colloquium	1	P	1st/AY2009-2010
Physics 231	Classical Electrodynamics I	3	1.25	1st/AY2009-2010
Physics 300	Masteral Thesis	3	On-going	1st/AY2009-2010
Physics 296	Graduate Seminar	1	1	2nd/AY2009-2010
Physics 300	Masteral Thesis	3	On-going	2nd/AY2009-2011
Physics 232	Classical Electrodynamics II	3	On-going	2nd/AY2009-2012
TOTAL UNITS		35		

REVISED PROGRAM of STUDY*

Course No.	Course Title	Units	Grade	Sem/Year
Physics 251	Statistical Physics I	3	2.5	2nd/AY2007-2008
Physics 290	Graduate Colloquium	1	P	2nd/AY2007-2008
Physics 305	Graduate Elective	3	1.25	2nd/AY2007-2008
Physics 221	Classical Mechanics I	3	2.25	1st/AY2008-2009
Physics 241	Quantum Mechanics I	3	1.5	1st/AY2008-2009
Physics 295	Experimental Plasma Phys	3	1	1st/AY2008-2009
Physics 242	Quantum Mechanics II	3	2	2nd/AY2008-2009
MSE 298	Plasma Chemistry	3	1	2nd/AY2008-2009
Physics 296	Graduate Seminar	1	1	2nd/AY2008-2009
Physics 290	Graduate Colloquium	1	P	2nd/AY2008-2009
Physics 231	Classical Electrodynamics I	3	1.25	1st/AY2009-2010
Physics 300	Masteral Thesis	6	On-going	1st/AY2009-2010
Physics 232	Classical Electrodynamics II	3	On-going	2nd/AY2009-2010
TOTAL UNITS*		36.00		

* Exempted from taking 2 units of Physics teaching. Total units does not include 2 units of Physics teaching.

Submitted by:

Hernando S. Salapare III
MS Physics
NIP-UP Diliman

no credits the day?
Physics 297 credit suby. &
exempted from physics teaching

-nature of program of study

IMPORTANT!!! FORM WILL ONLY BE ACCEPTED IF ENTRIES IN ALL PAGES ARE READABLE.

UP FORM 5. UNIVERSITY OF THE PHILIPPINES CERTIFICATE OF REGISTRATION (REV. 03-07) This serves as OFFICIAL RECEIPT if amount is printed thru cash register.

STUDENT NUMBER		NAME (Last, Given, Middle, If a married woman, include maiden name)		COLLEGE		DEGREE & MAJOR		TERM & SY	
2501- 62699		SALAPARE, HERNANDO III		ES-GRAD		MC PHYSICS		2/09-10	
CLASS CODE	SUBJECT	SECTION	UNITS	DAYS	TIME	ROOM	LAB. FEE	CODE	
41525	PHYSICS 233	WFF	3	WF	4:00-5:30	PH-4224			
<p>VALIDATED <i>4/0</i></p> <p>REGISTERED: 305 QUM</p>									
<p>UP LIBRARY CLEARANCE <i>3</i></p>									
Signature and Printed Name of Adviser		Country of Citizenship		STAFF Bracketed and Certified by:		Amount Received by:		Assessed by:	
<i>H. Ramos</i>		Philippines		-		CASH		Scholarship / Privilege	
						CHECK:		<i>1150</i>	
						LOAN:		DOST-ASTHRDPY	
Signature of Student		Date		First Time to enroll in UP?		O.R. No.		Date	
<i>Hernando III</i>		Nov 5, 09		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
								Amount Paid	

STUDENT'S COPY

ok / nature of POS, & their report

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STUDENT NUMBER		NAME (Last, Given, Middle, If a married woman, encircle maiden name)		DEGREE & MAJOR		TERM & SY
2001-02699		SALAPARE, HERNANDO II		SCIENCE		1/09-10
CLASS CODE	SUBJECT	SECTION	UNITS	DAYS	TIME	ROOM
41534	PHYSICS 231	WF3	3	WF	5:30-7	PH 433g
41543	PHYSICS 300	GB	6	TBA	TBA	TBA
VALIDATED						
Tuition						
MISC: Library						
Athletics						
Registration						
Medical						
Cultural						
Internet						
Energy						
NSTP-CWTS / MS						
NSTP-INSURANCE						
Student Fund						
Deposit / Entrance						
Laboratory Fee						
EDF						
Fino						
TOTAL FEES						
Less: Scholarship / Privilege						
AMOUNT PAYABLE						
Amount Received by:				Assessed by:		
CASH: 11,204.00				Scholarship / Privilege		
CHECK: 0.00				P. ANSTRO		
LOAN: 0.00				DOST-AST-RND		
Country of Citizenship: Philippines				Date: 6/8/09		
STFAP Bracket No. Certified by:				O.R. No.		
First Time to enroll in UP? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Amount Paid		
Signature of Student		Date: June 2, 2009		Signature of Adviser		
GENE BLANTOCAS		June 2, 2009		GENE BLANTOCAS		

STUDENT'S COPY

Part-time 6/8/09
DOST

REGISTERED: 0010.4.12

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WRITE IN BLOCK LETTERS. Use an "X" mark in answering information preceded by a box ☐

STUDENT NUMBER 2001-02699		NAME (Last, Given, Middle. If a married woman, encircle maiden name) SALAPARE, HERNANDO III SIY				COLLEGE CS	DEGREE & MAJOR MS PHYSICS	TERM & SY 1/09-09
CLASS CODE	SUBJECT	SECTION	UNITS	DAYS	TIME	ROOM	LAB. FEE	CODE
41482	PHYSICS 295	WFZ	3	WF	5:30-7:00	PH 3201-3211		
41400	PHYSICS 241	WFX	3	WF	4:00-5:30	PH 4234		
41399	PHYSICS 221	TTHZ	3	TTh	5:30-7:00	PH 4234		
<p>VALIDATED <i>[Signature]</i></p>						Tuition		8150
						MISC:		
						Library		
						Athletics		
						Registration		
						Medical		
						Cultural		1415
						Internet		
						Energy		
						NSTP-CWTS / MS		
NSTP-INSURANCE								
Student Fund		9150						
Deposit / Entrance								
Laboratory Fee		400						
EDF								
Fine								
TOTAL FEES								
Less: Scholarship / Privilege		10,006.50						
AMOUNT PAYABLE								
LIBRARY								
CLEAR								
Signature and Printed Name of Adviser								
Signature of Student								
TOTAL UNITS		9						
Country of Citizenship		Philippines						
STFAP Bracket No.								
Certified by:								
Date:		June 4, 2008						
First Time to enroll in UP?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Amount Received by:		bobby						
CASH:		P1,496.50						
CHECK:		P0.00						
LOAN:		P8,510.00 3TD						
OR 3000664								
6/5/2008 2:30:22 PM								
Assessed by:		<i>[Signature]</i>						
Scholarship / Privilege								
2001-02699								
10,006.50								
Amount Paid								

08 11708

7/7/08
for reimbursement.

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WRITE IN BLOCK LETTERS. Use an "X" mark in answering information preceded by a box ☐

STUDENT'S COPY				STUDENT'S COPY							
STUDENT NUMBER	NAME (Last, Given, Middle, If a married woman, give her maiden name)	SECTION	UNITS	DAYS	TIME	ROOM	LAB. FEE	CODE	COLLECT	DEGREE & MAJOR	TERM & SY
2001-02609	SALAPARE, HERNANDO III								<input checked="" type="checkbox"/> CASH	MS PHYSICS	1/08-09
41521	PHYSICS 44	WTF	3	WTF	5:30-7	PH 4234					
41531	PHYSICS 29D	MN	1	M	5-6	PH 3013					
41808	WISE 298	MHP	3	WTF	4-5:30	TBA					
41532	PHYSICS 29L	MD	1	M	6-7	PH 3013					
VALIDATED <u>Yes</u>											
Billed by <u>WFP 10/18/11-a</u>											
TOTAL FEES											
Tuition											
Lab. Fee											
Library											
Registration											
Medical											
Cultural											
Internal											
Energy											
NSTP-CWTS / MS											
NSTP-INSURANCE											
Student Fund											
Disposal / Entrance											
Laboratory Fee											
Fine											
TOTAL FEES											
Less: Scholarship / Privilege											
AMOUNT PAYABLE											
Assessed by: <u>1150</u>											
Scholarship Privilege											
Debit - Waiver											
Amount Paid											
Signature of Student: <u>Hernando III Salapare</u>											
Signature and Printed Name of Adviser: <u>Hernando III Salapare</u>											
Date: <u>Nov. 3, 2008</u>											
First Time to enroll in UP? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
O/R No. <u>08 11378</u>											

PT 11/4/08

11/20/08

THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS

MANILA PHILIPPINES
ADMINISTRATION OFFICE
Temple Drive, Greenmeadows
Quezon City 1110

CERTIFICATION OF EMPLOYMENT AND COMPENSATION


TO WHOM THIS MAY CONCERN:

This is to certify that Ms. MA. AMELIA S. MINOZA is employed by The Church of Jesus Christ of Latter-day Saints since August 01, 1997 up to the present. She has a full-time appointment as ACCOUNTING CLERK in the Financial Reporting & Controls Department. She receives an equivalent annual compensation of P460,616.00 inclusive of holidays and 13th month pay.

This certification is being issued upon the request of Ms. MINOZA for whatever legal purposes this may serve.

Issued this 27th day of June, 2008 at Quezon City, Metro Manila.

Certified by:


NILO M. PENALES
Area Human Resource Manager