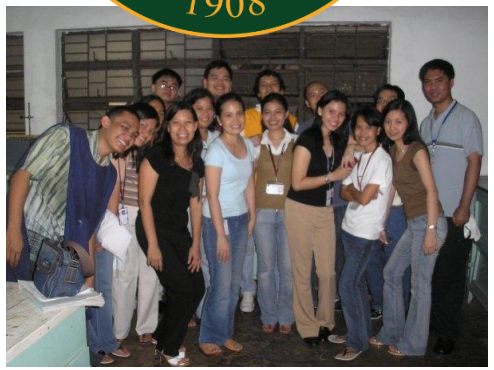
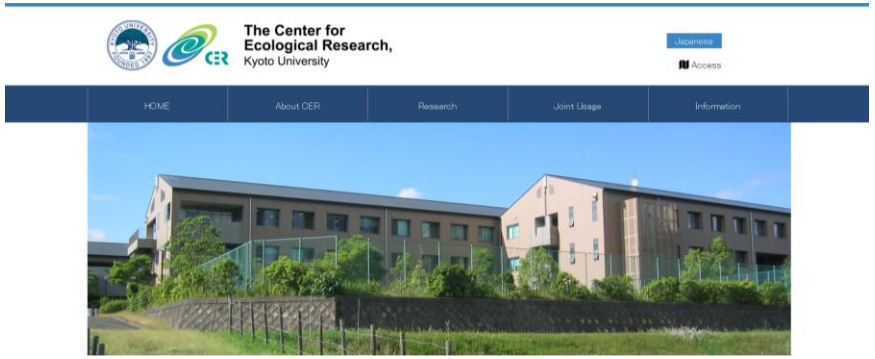
MICROBES, ELECTRODES & ISOTOPES: RESEARCH APPLICATIONS

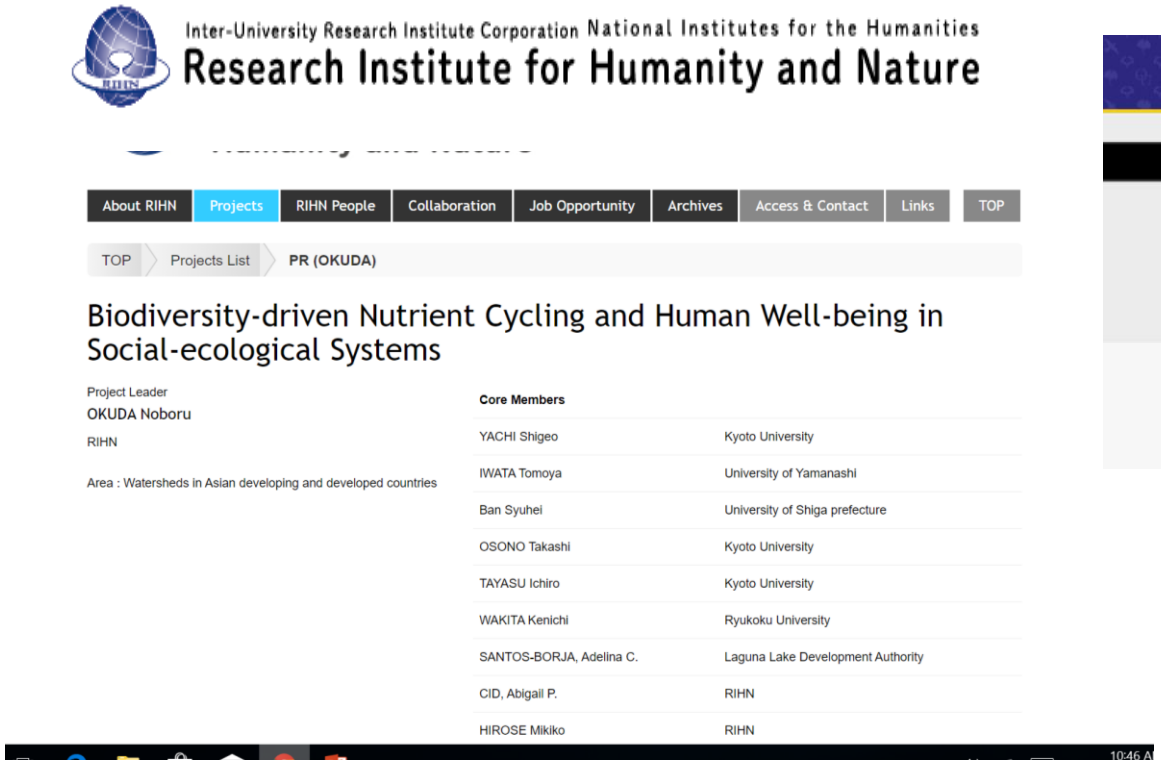
BSP Exit Report Presentation
Dr. Abigail P. Cid-Andres
Chemistry, Environment
Polytechnic University of the Philippines

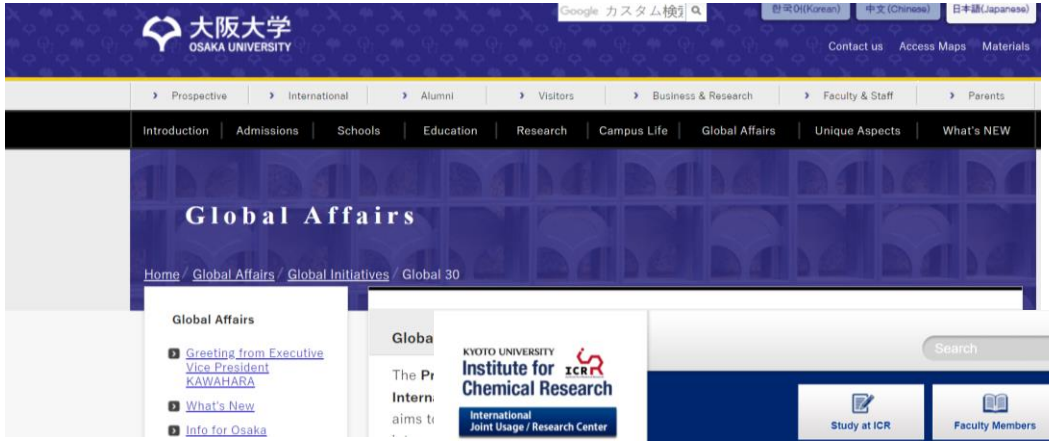
About Dr. Abigail Cid
BS Chemistry at the Polytechnic University of the Philippines
MS Chemistry, PhD units in Chemistry at the University of the Philippines
PhD units Environmental Engineering and Sustainability at the Gwangju Institute of Science and Technology, Korea
DSc Chemistry at the Kyoto University, Uji City, Kyoto, Japan

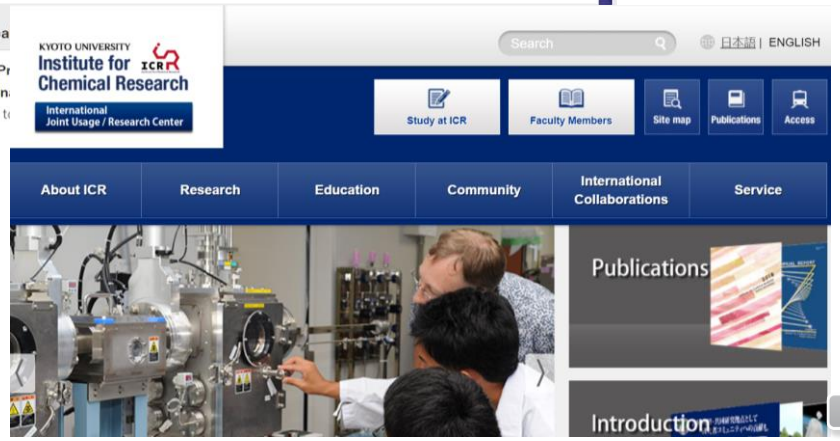


About Dr. Abigail P. Cid researches and international work
Postdoc Researcher at the Center for Ecological Research, Kyoto University, Otsu City, Shiga, Japan
Postdoc Researcher at the Research Institute for Humanity and Nature, Kyoto, Japan
Lecturer at the International College, Chemistry and Biology Combined Major Program, Osaka University, Osaka, Japan

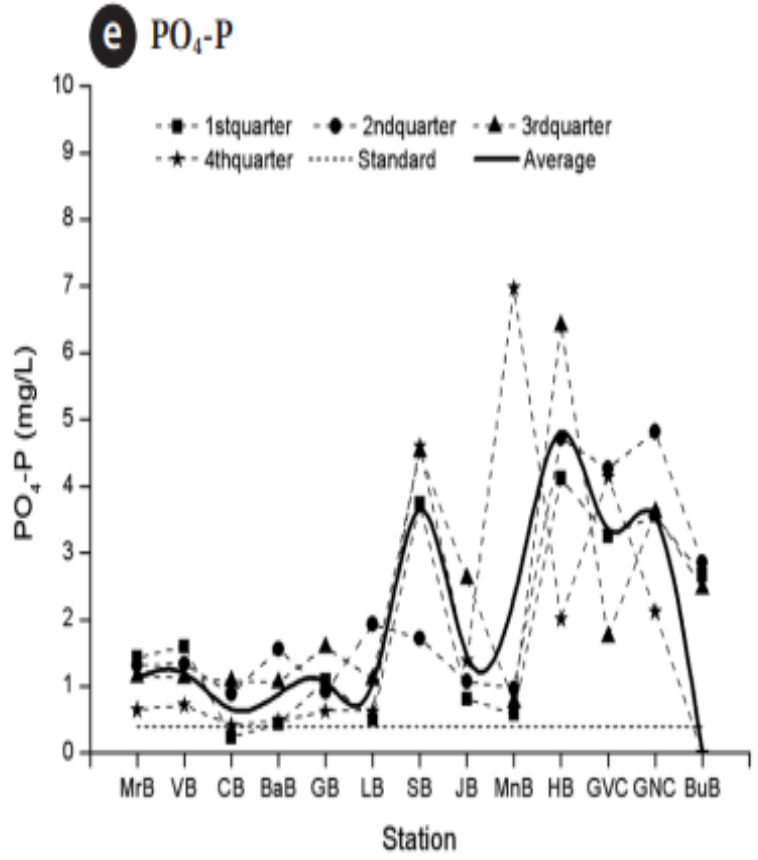






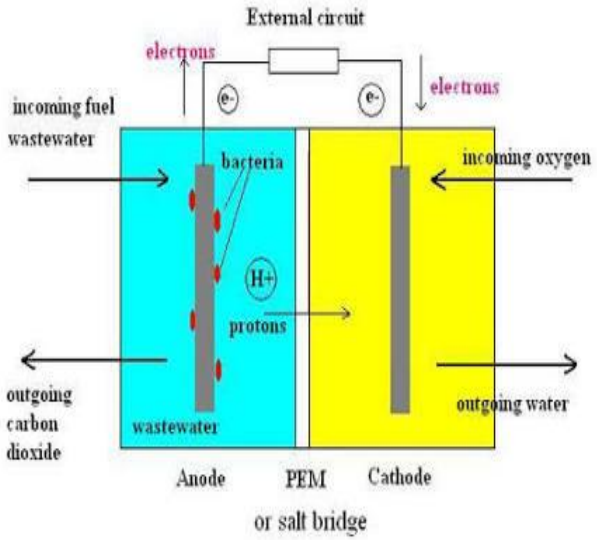


POLLUTED RIVERS

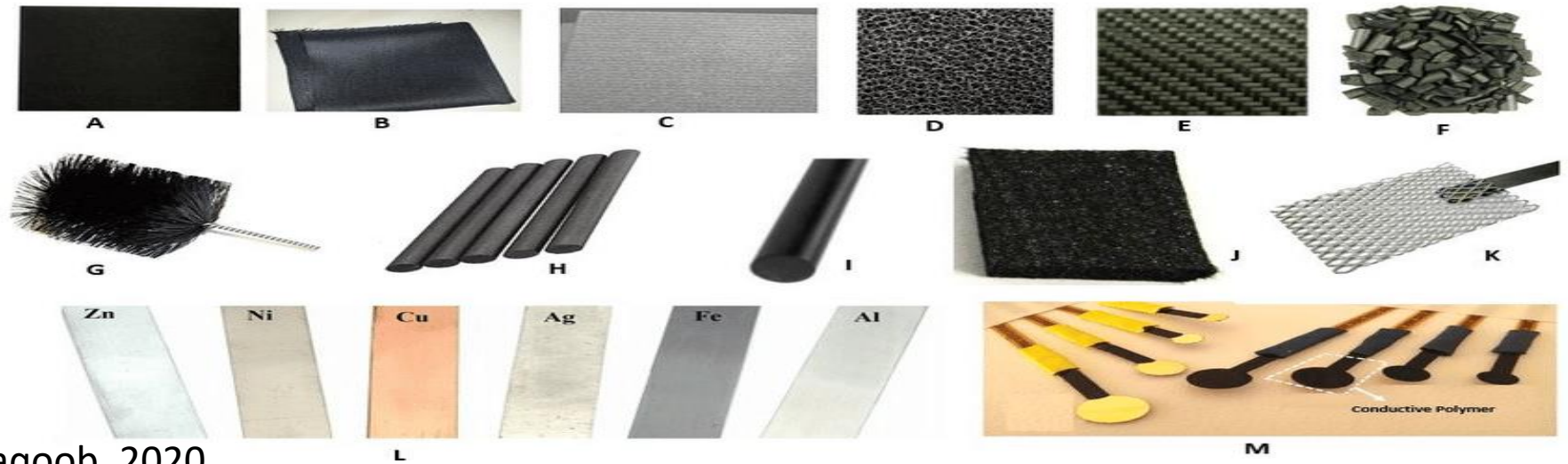


MICROBES AND ELECTRODES

Microbial Fuel Cell

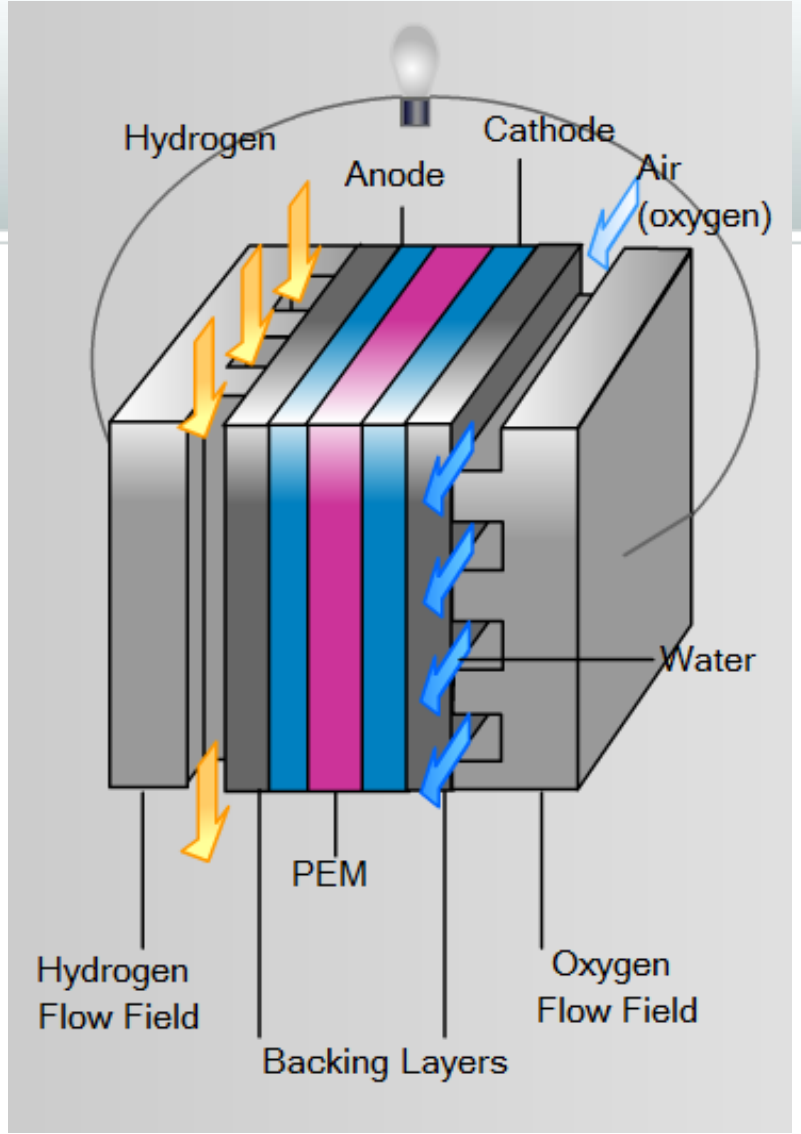


Electrodes



Yaqoob, 2020

- a bioelectrochemical that drive electrochemical system that drives an electric current using microbes and high energy oxidant
- They produce electricity and heat as long as fuel is supplied. A fuel cell consists of two electrodes—a negative electrode (or anode) and a positive electrode (or cathode)—sandwiched around an electrolyte.

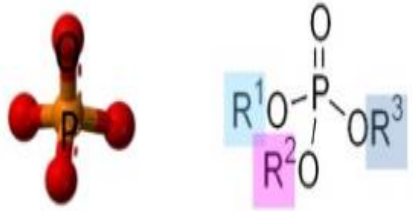


MICROBIAL FUEL CELLS (MFC)

ISOTOPES

OXYGEN ISOTOPES OF PHOSPHATE

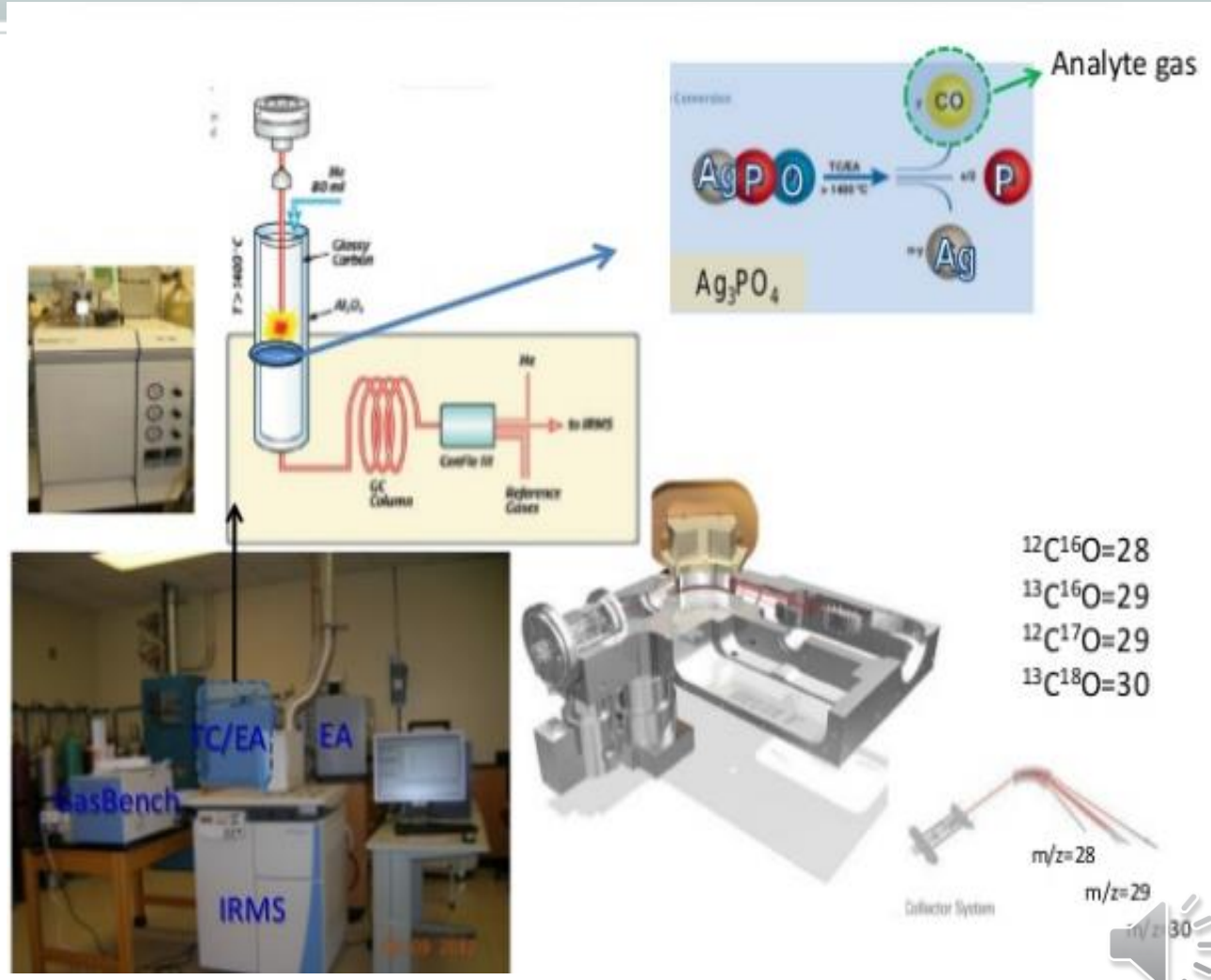
1. Radio Isotopes: ^{32}P: β^- emitter (1.71 MeV), half-life of 14.3 days)
   ^{33}P: β^- emitter (0.25 MeV), half-life of 25.3 days)
2. Stable Isotopes: ^{31}P: has no other stable isotopes



Three stable isotopes of oxygen (^{16}O, ^{17}O and ^{18}O)

$$\delta^{18}O_p = \left[\frac{(^{18}O/^{16}O)_{sample}}{(^{18}O/^{16}O)_{VSMOW}} - 1 \right] x1000$$

Photo: Dr. Deb Jaisi



OBJECTIVES

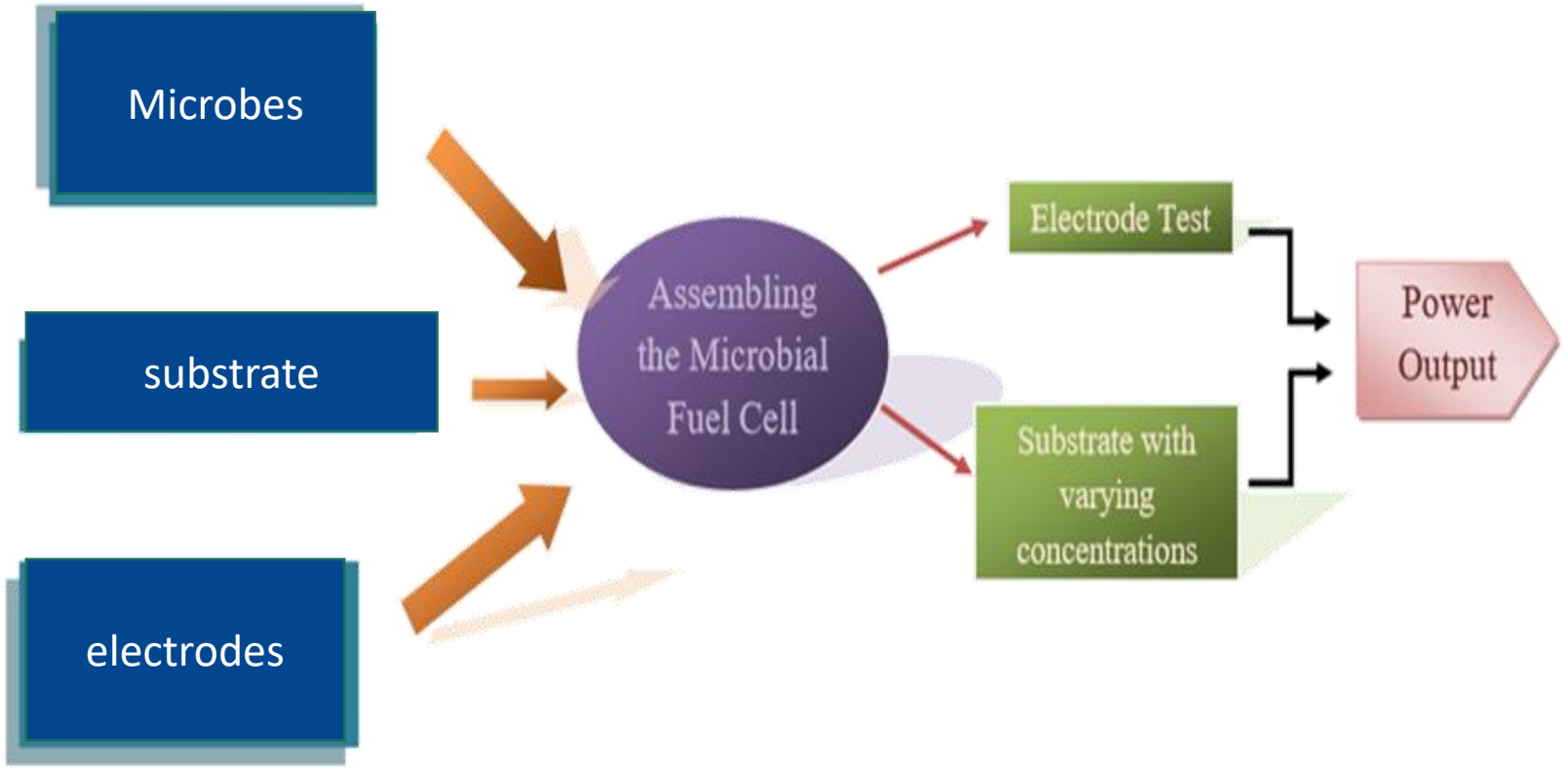
To present possible research applications for long time problems using microbes, electrodes and isotopes

The performance of MFC was studied for different electrolytes, electrodes and cultures of the microbes

To demonstrate the use $\delta^{18}O_P$ in identifying sources of P understanding the processes, cycling and biological impact of P

METHODOLOGY

MICROBES AND ELECTRODES



1

Time(minutes)	Voltage/mV (1x10^-3 V)		Difference
	With MB	Without MB	
0	2.13	22	-19.87
5	3.5	25.5	-22
10	3	33.3	-30.3
30	1.3	29.5	-28.2
60	1.5	30.1	-28.6
120	7.6	21.3	-13.7
360	8.3	19.7	-11.4
720	29.3	17.8	11.5
1440	23.2	10.7	12.5
2880	5.3	14.4	-9.1
4320	17.3	10.7	6.6
5760	24.1	11.9	12.2
7200	16.8	34.5	-17.7

5% glucose solution
w/ or w/o Met Blue
E. coli

copper solution

CHINO ANTONIO
SHARLEEN CAFE
REXIEL DECIERDO
KIMBERLY GARCIA
JOHN ADRIAN PASCUA
ANGELICA PAULO
ANNE JIZELLE PRADO

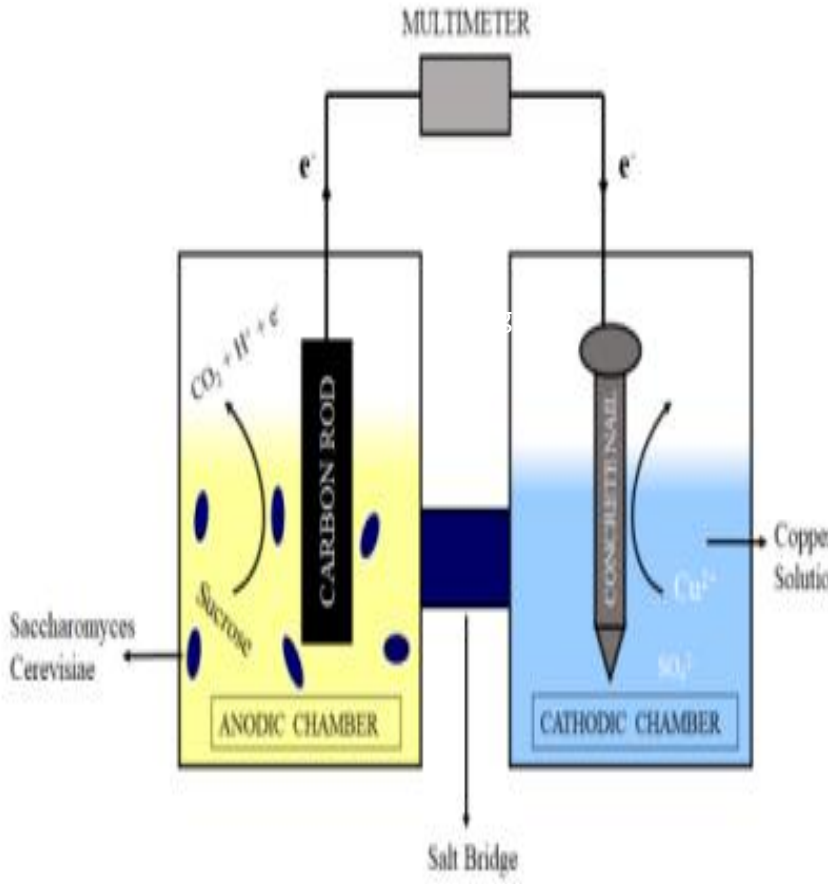
Microbial Fuel Cell using Escherichia coli With and Without Methylene Blue as Mediator

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

2

MICROBIAL FUEL CELL USING SACCHAROMYCES CEREVISIAE (BREWER'S YEAST) AS BIOCATALYST: COPPER SULFATE PENTAHYDRATE AS TERMINAL ELECTRON ACCEPTOR

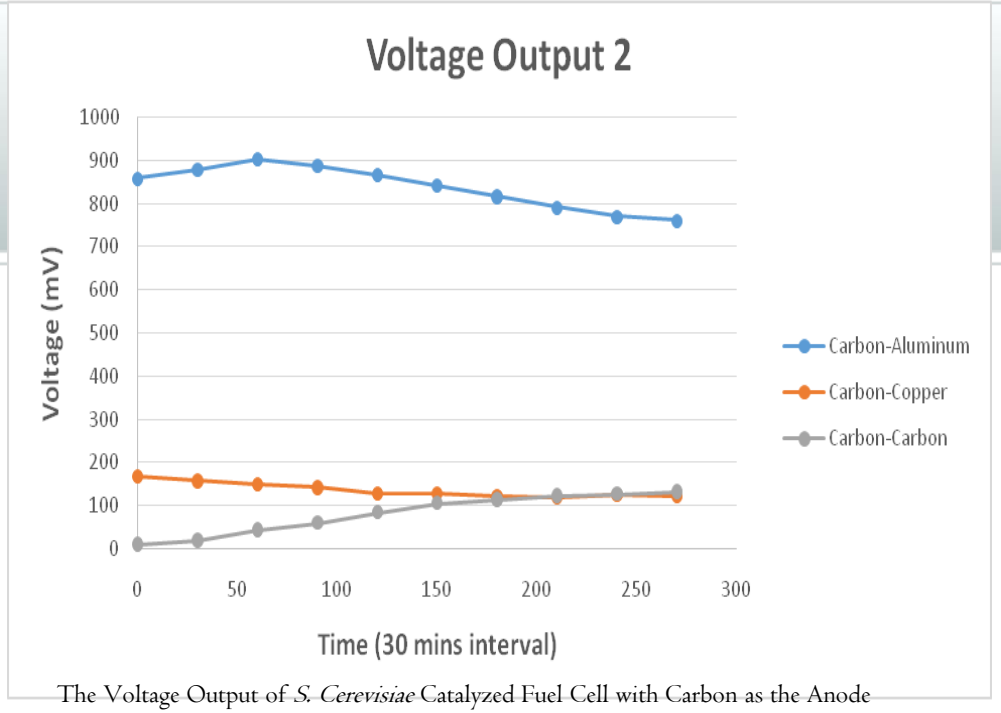
REB B. PEREZ , PATRICIA ANTONINO , MARIE ANGELICA AREVALO , CAMILLE BUBAN , RUTH ROYELLE IZON , MONSOUR JOAQUIN , ANDREA JAVE MAGAYANES , AND CLIVE DERENZ NADUNZA



Time (hour)	Voltage mV	Current mA
0	232	0.005
2	534	0.0833
4	612	0.1167
6	601	0.15
8	632	0.175
10	579	0.183
12	623	0.183
18	581	0.267
20	603	0.25
22	602	0.25
24	538	0.283

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

3



The Voltage Output of *S. Cerevisiae* Catalyzed Fuel Cell with Carbon as the Anode with variation of Cathode

THE EFFECT OF ELECTRODE MATERIAL AND SUBSTRATE CONCENTRATION FOR ELECTRICITY GENERATION OF Saccharomyces Cerevisiae CATALYZED MICROBIAL FUEL CELL

Bueno, Shiela Marie
Caguioa, Krysta Marie
Hugo, Bernadette
Ilano, Chelsea Jellene
Rodriguez, Jose Mari
San Jose, Saiym Faustine
Sasis, Kimberly Neal Nathalie
Soriano, Sandy May
Tawing, Karla Jane
Villaluna, Shan Nicolai

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

4

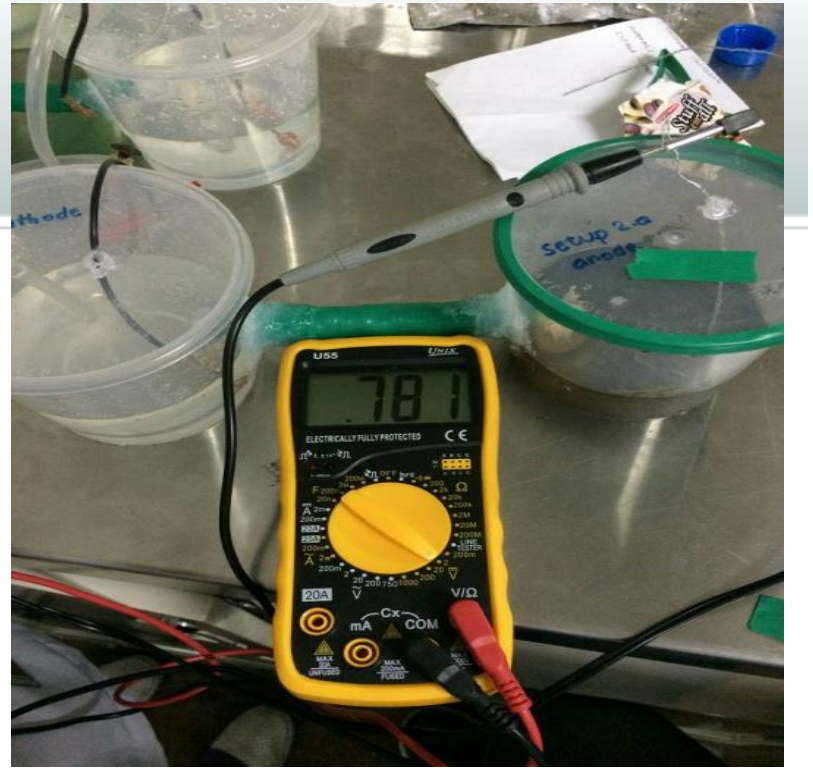
Setup	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	Average
A	0.8v	0.87v	0.97v	0.97v	0.96v	0.914v
B	0.89v	0.99v	1.01v	1.05v	0.95v	0.978v
C	0.86v	0.95v	0.88v	0.93v	0.87v	0.898v
AB	1.96v	1.94v	1.96v	1.98v	1.9v	1.948v
AC	1.87v	1.86v	1.89v	1.75v	1.88v	1.85v
CB	1.81v	2.16v	1.54v	1.72v	1.78v	1.802v
ABC	2.73v	2.87v	2.75v	2.63v	2.79v	2.754v

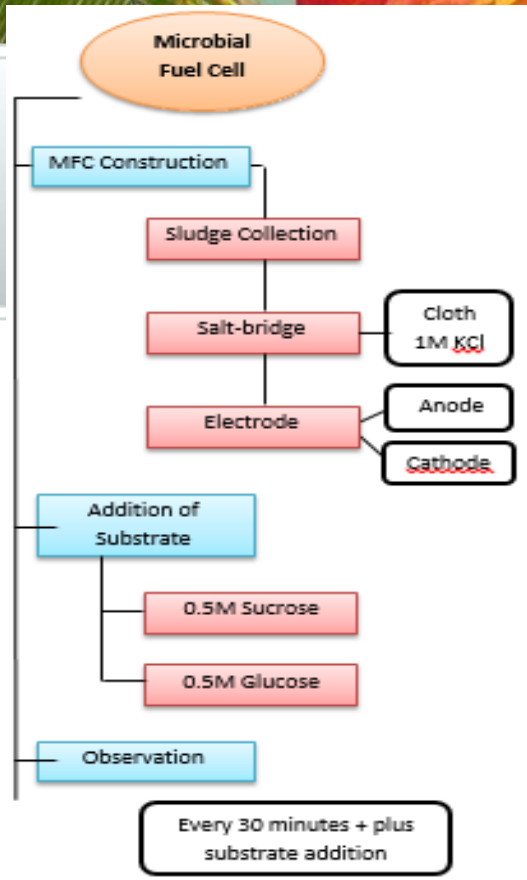
Utilization of *Lactobacillus casei* as a Microbial Fuel Cell using Aluminum Foil as a Cathode Electrode

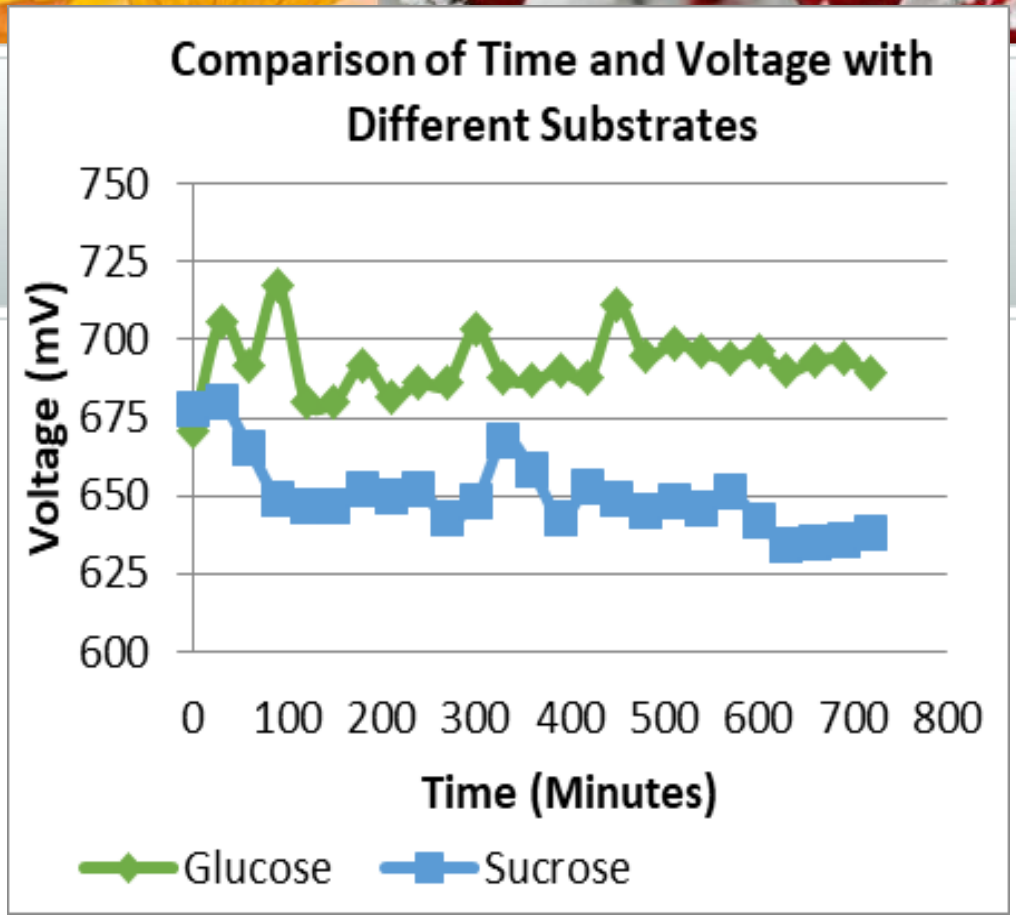
Begino, Ronald, Castañares, Mariecon, Delavin, Grace Clarisse, Fabian, Ron Vincent, Fernandez, Martin, Ison, Alexis Mae, Mandane, Margie Lhot, Soneja, Nerilene, Villabesa, Rommel

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

5







The Comparative Analysis of Glucose and Sucrose Used in Two Chamber Microbial Fuel Cell

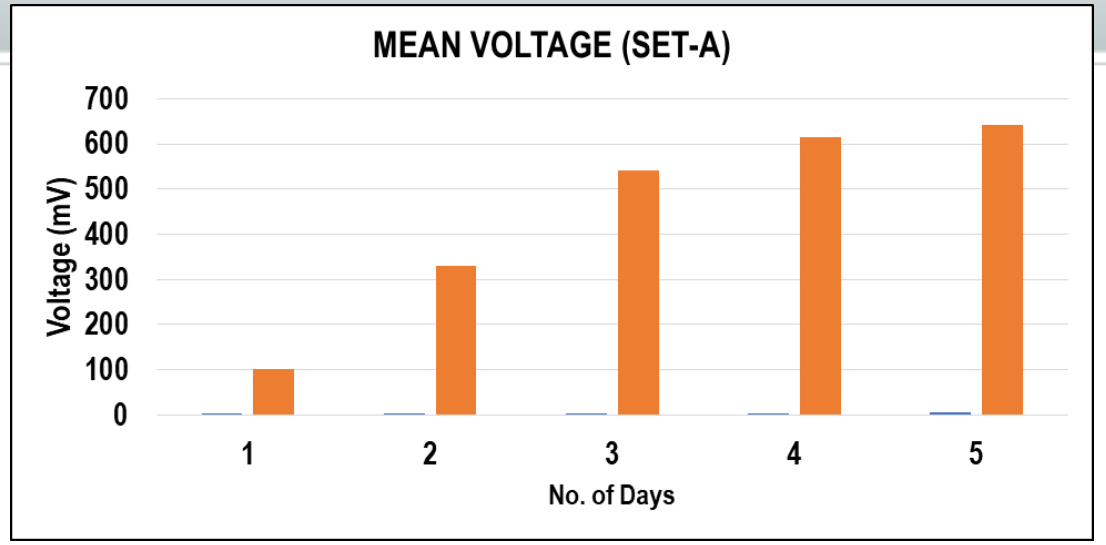
Arquilada, Anton Max N., Clemente, Shynne Izza F., Dolores, Charlotte Anne G., Manansala, Ronimar G., Mendez, Regine L., Pamo, Kier C., Peñaranda, Aloha Bianca L., Pineda, Precious V., Ramos, Angelica Medz E.

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

6

BIOELECTROCATALYTIC RECOVERY OF COPPER METAL IN A MICROBIAL FUEL CELL OF *BACILLUS SUBTILIS* USING WOOD DUST AS A SUBSTRATE

MFC containing substrate (anodic chamber) and 500ppm Cu^{2+} (cathodic chamber)



Cagoyong, Frances Irene C.

Francisco, Nhicole Jhosel A.

Halili, Leo O'neill

Ilagan, Rencynt A.

Macabinquil, Antonette M.

Moreno, Eunel Ellise D.

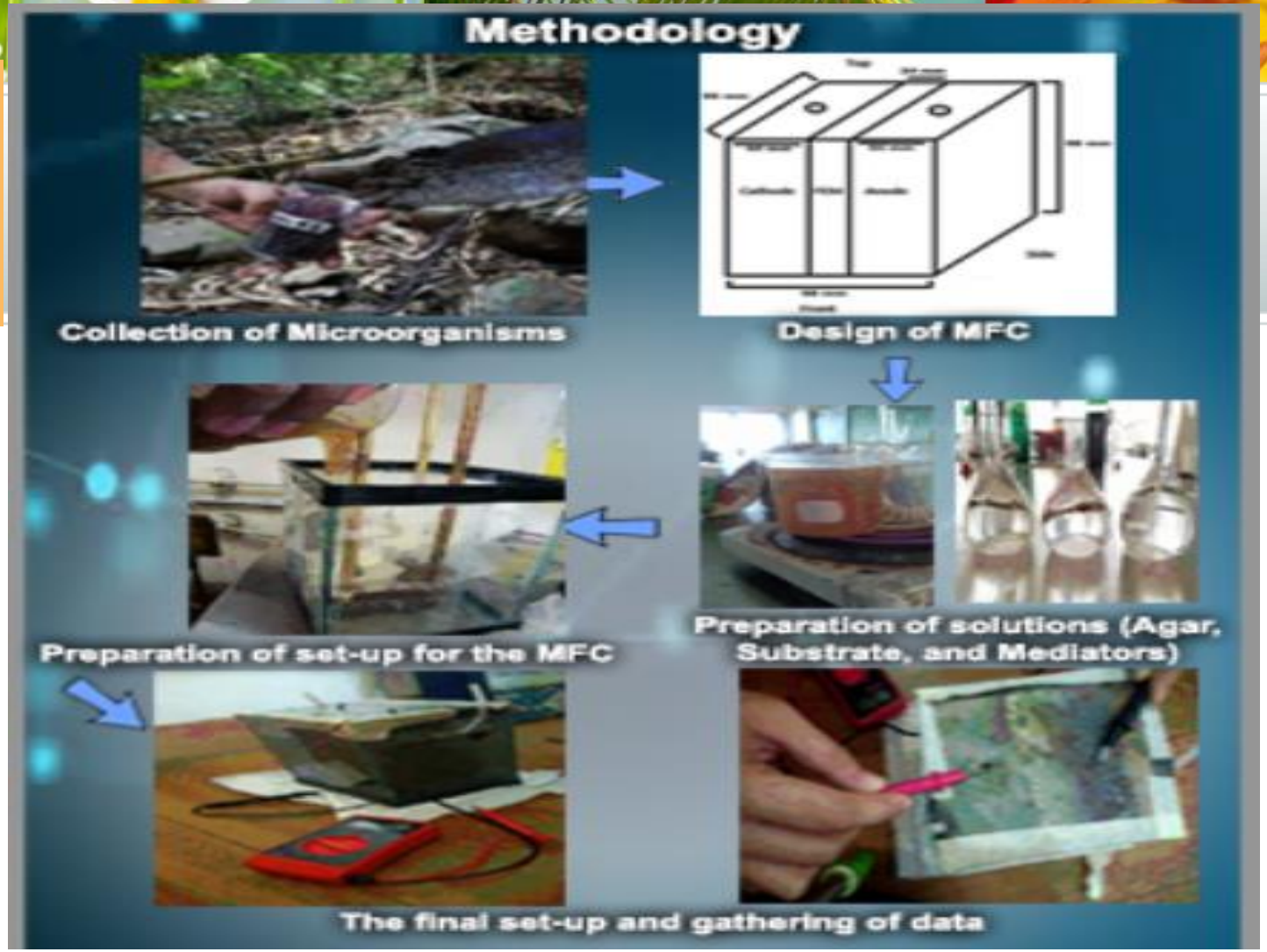
Peroja, Khennyie-Ar G.

Solis, Brad Randel B.

Tuberon, Nicole Ann L.

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

7

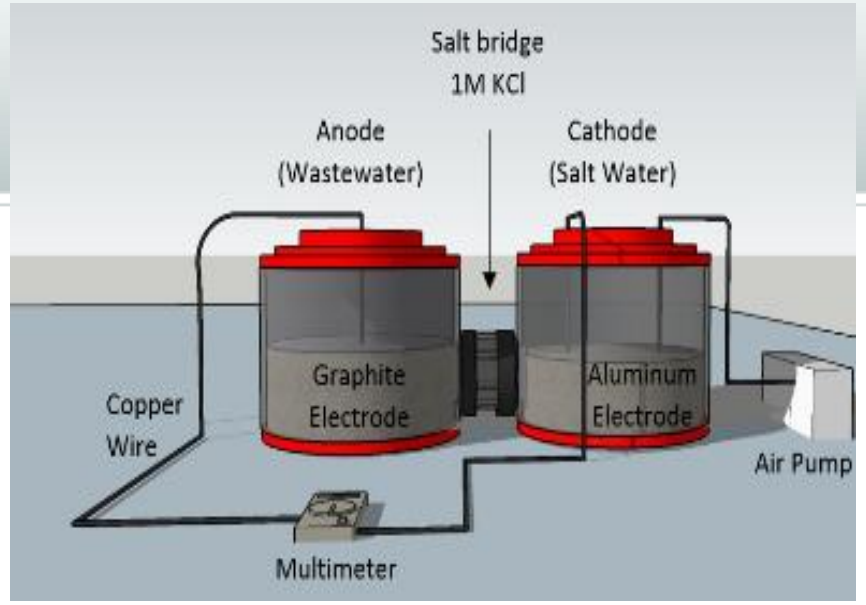


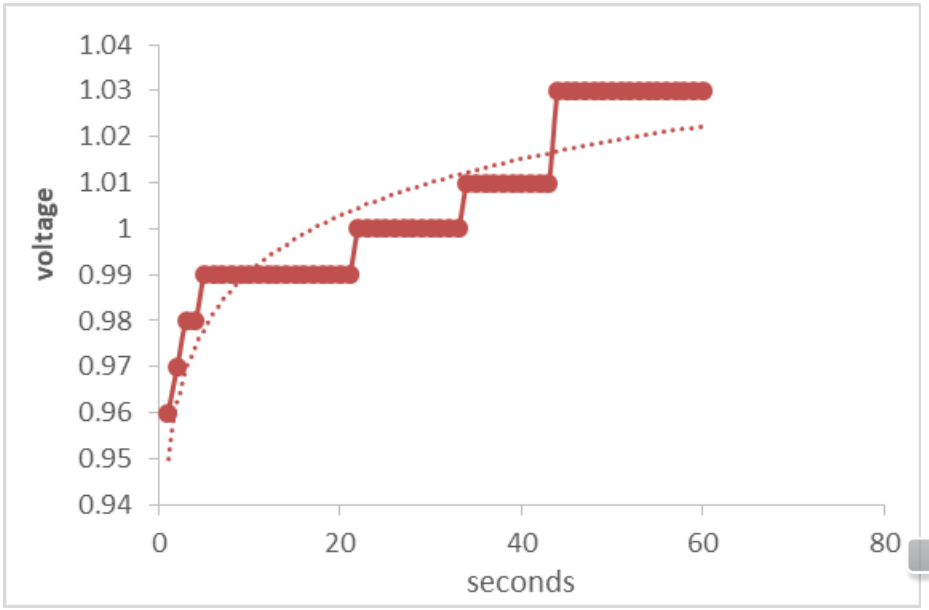
Time(Minutes)	Volts in mv
0	598
30	763
60	768
90	776
120	779
150	782
180	787
210	790
240	793
270	796
300	798
330	800
360	806
390	826
420	816
450	813
480	825
510	840
540	842
570	847
600	829
630	843
660	825
690	808
720	828

Two-Chamber Microbial Fuel Cell: Power Generation from the Anaerobic Bacteria

Abulag, Jericho G. Cahigas, Yvonne Kate C. Manalo, Rowell R. Arcenal, Regine T. Cristobal, Raymond D. Sadie, Joshua P. Bernardo, Freymar Dave M. Jimenez, Ma. Joerdette N. Terante, Raini M.

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES





Electricity-generating Double Chamber Microbial Fuel Cell using Waste Water Retrieved from an *Estero* in Vicente Cruz Street in Sampaloc, Manila

Roel Joseph C. Antonio, Marlo B. Barrera, Harold A. Buenavides, Liv Jurrianne B. Caacbay, Andrea Grace A. Fernandez, Generose T. Mengullo, Jennylyn B. Pan, Jovereeh Chloeeh Pascual, Archie Emmanuel L. Quillo, Jeffrey Yap

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

METHODOLOGY

ISOTOPES

Sample
+ $MgCl_2$ + NaOH

Magnesium induced coprecipication (MagIC)

→ Organic Matter Removal DAX-8 Resin

→ Cerium phosphate precipitation

↓

Cl^- ion removal Buffer washing

← Ce^+ ion Removal BIORAD AG50W Resin

← Silver phosphate precipitation

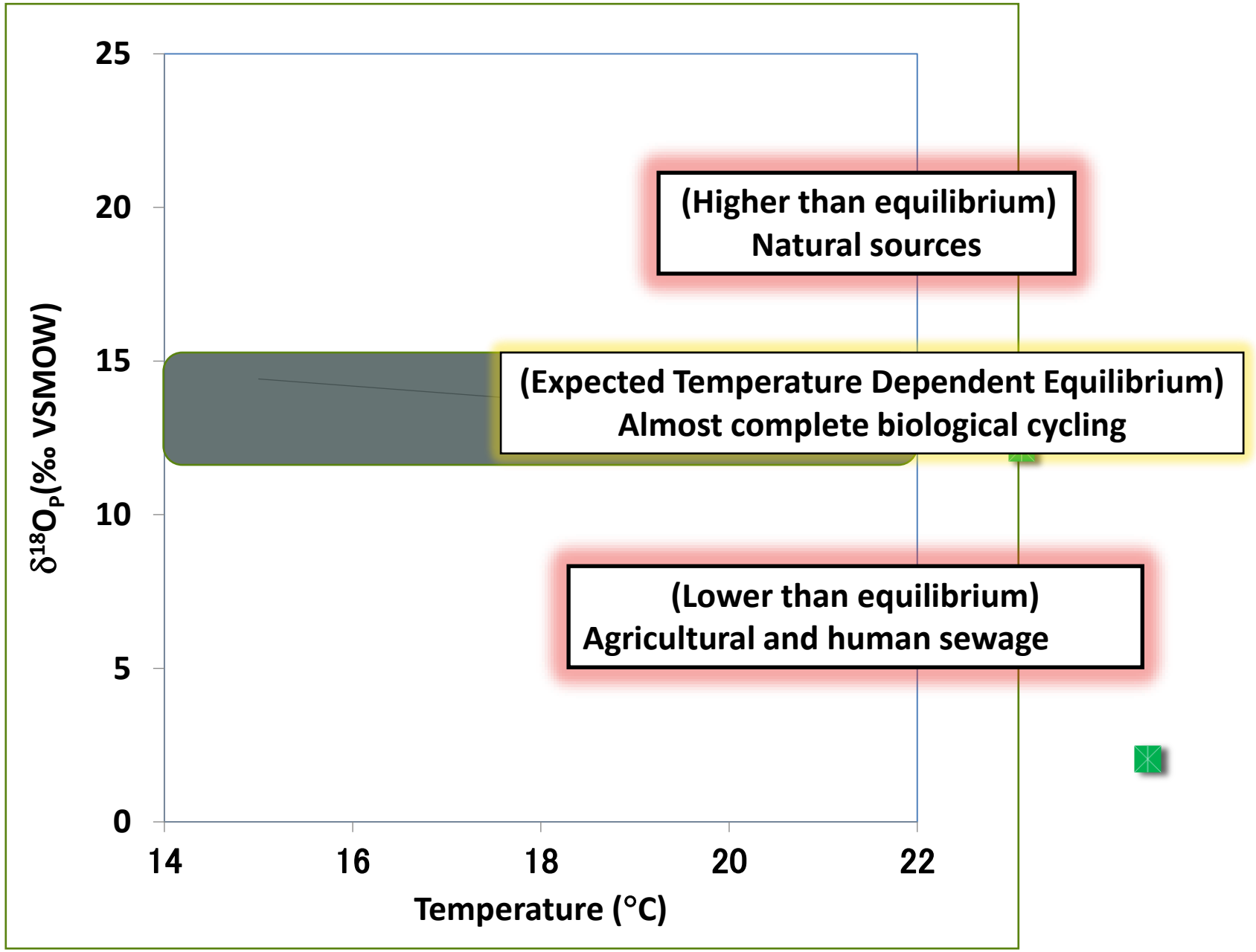
↓

Organic Matter Removal H_2O_2

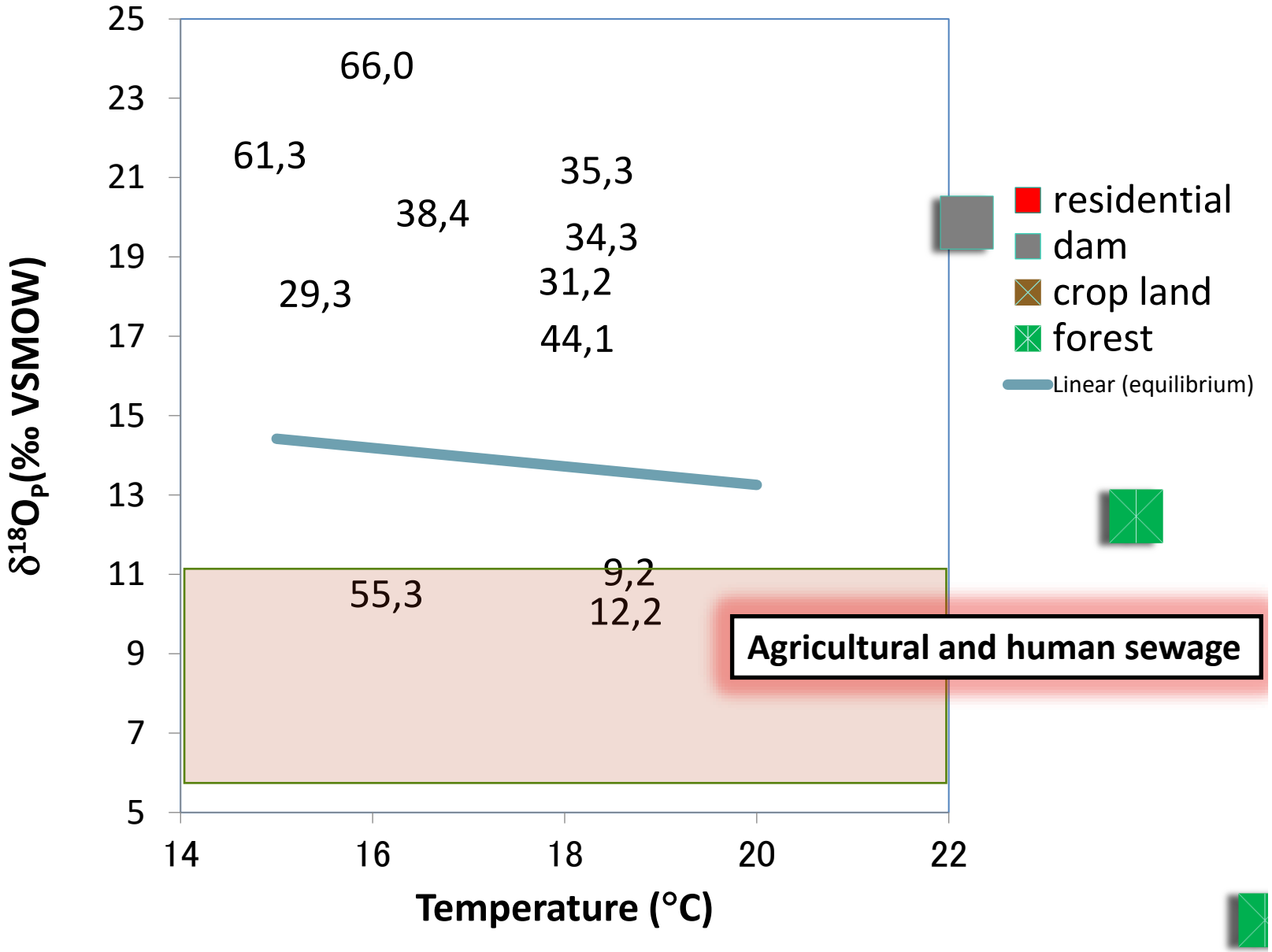
→ Drying at 50 °C

→ To TCEA-IRMS for oxygen isotope analysis

Results


25
20
15
10
5
0
$\delta^{18}O_P$(‰ VSMOW)
14
16
18
20
22
Temperature (°C)
(Higher than equilibrium)
Natural sources
(Expected Temperature Dependent Equilibrium)
Almost complete biological cycling
(Lower than equilibrium)
Agricultural and human sewage

Results


25
23
21
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17
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13
11
9
7
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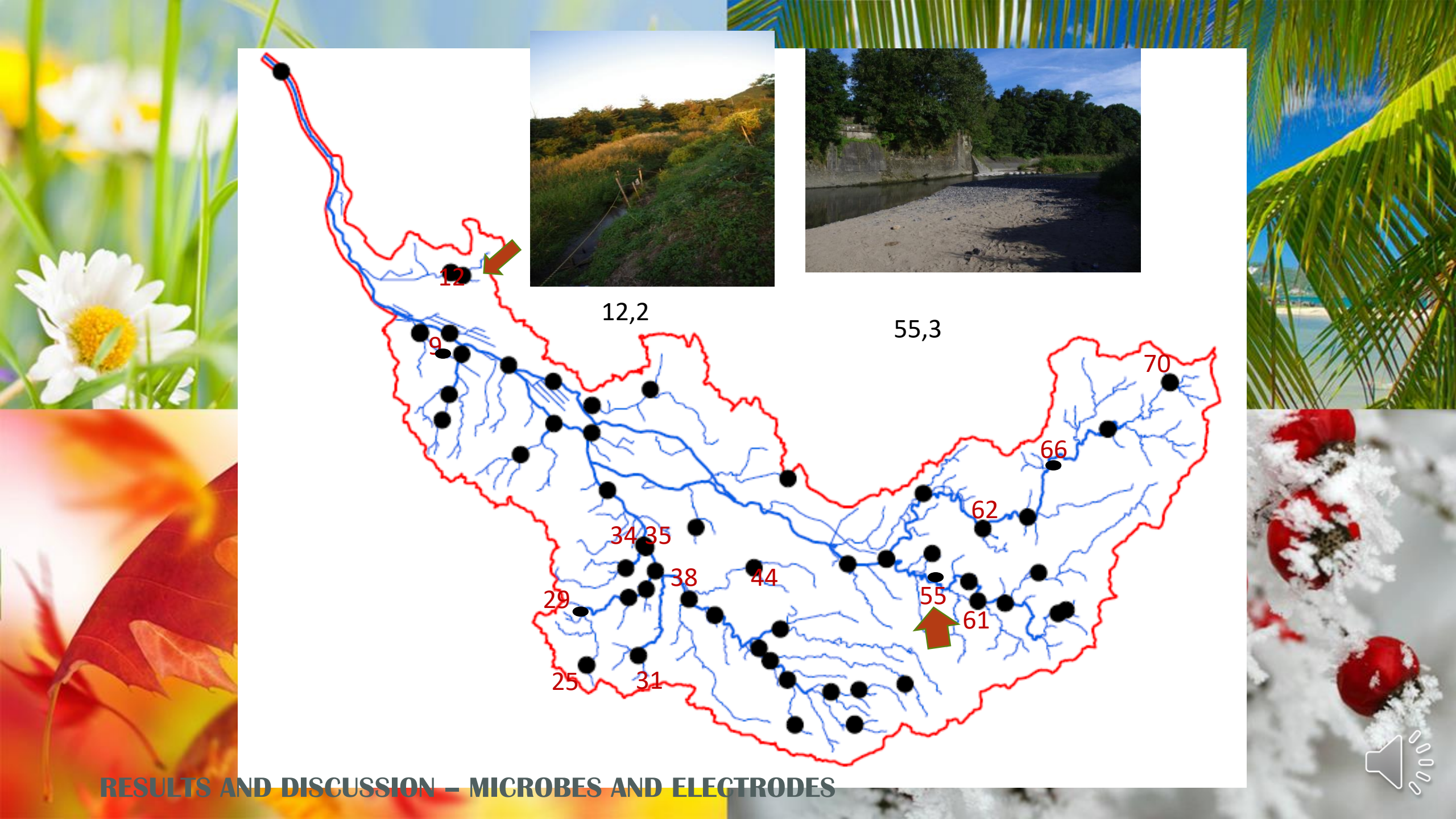
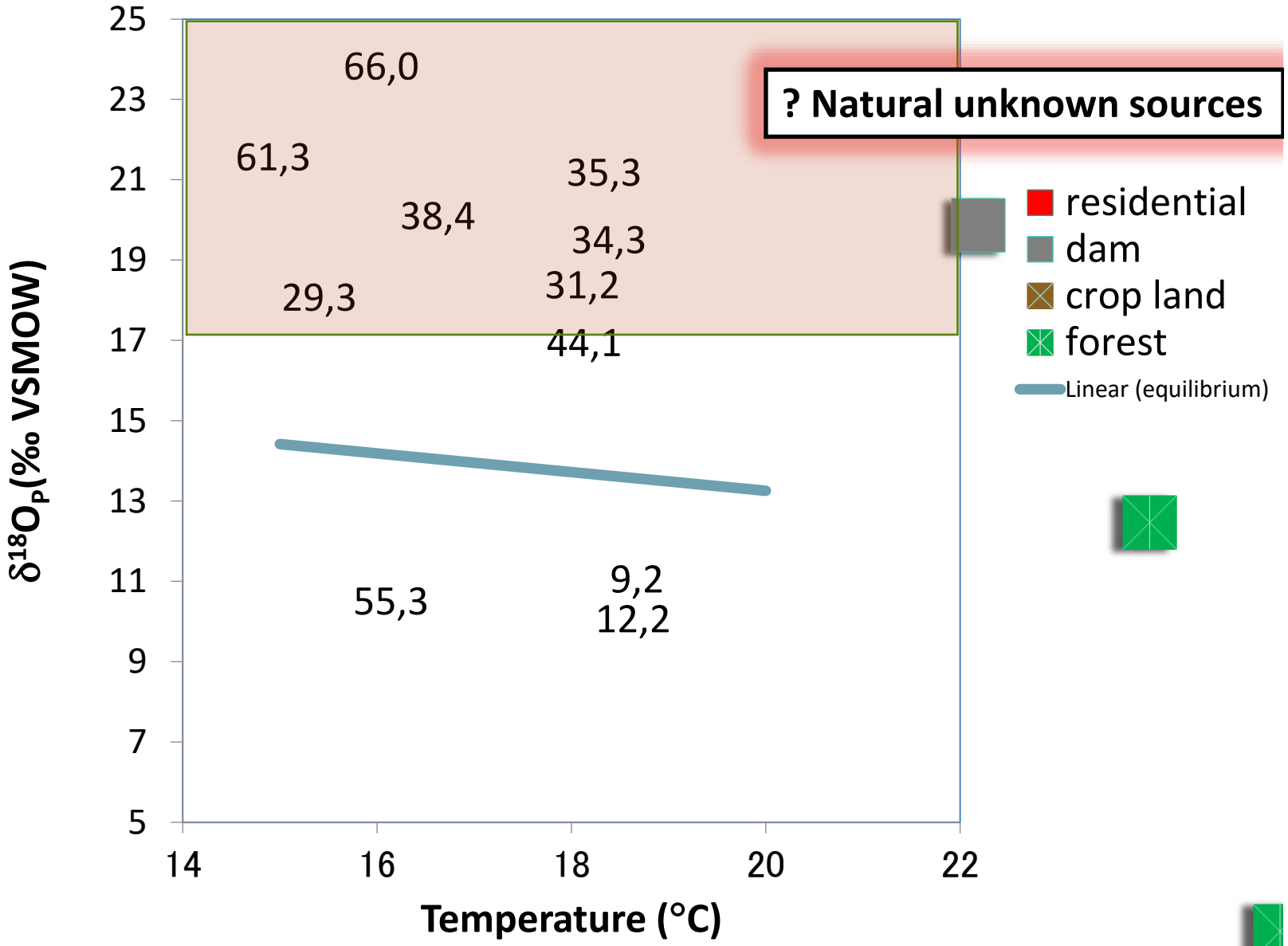
20
22
66,0
61,3
35,3
38,4
34,3
29,3
31,2
44,1
55,3
9,2
12,2
residential
dam
crop land
forest
Linear (equilibrium)
Agricultural and human sewage
δ18OP(‰ VSMOW)
Temperature (°C)



RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

Results



RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

66, 0

34,3

38,4

12

9

70

66

62

34 35

38

44

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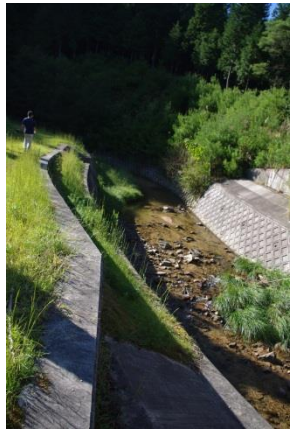
55

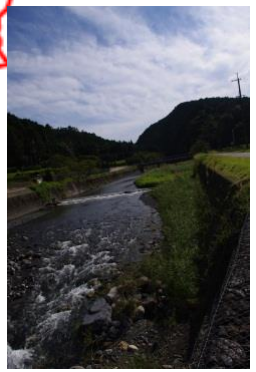
61

25

31



29,3



61,3

RESULTS AND DISCUSSION – MICROBES AND ELECTRODES

CONCLUSIONS

- Microbial fuel cells can be a useful method in addressing solid waste and waste water problems and can be a source of energy.
- $\delta^{18}O_P$ can help to better understand **nutrient dynamics in rivers and its effect** on **biodiversity.**
- These works may also have important implications for approaches to manage Philippine rivers and its watersheds in order to protect aquatic ecosystems from nutrient enrichment.

ACTIVITIES CONDUCTED

ABIGAIL P. CID

BALIK SCIENTIST

2018 - 2020

ACTIVITIES CONDUCTED ADMINISTRATION

ABIGAIL P. CID

BALIK SCIENTIST

2018 - 2020

2018 – The First CS Faculty Laboratory Orientation



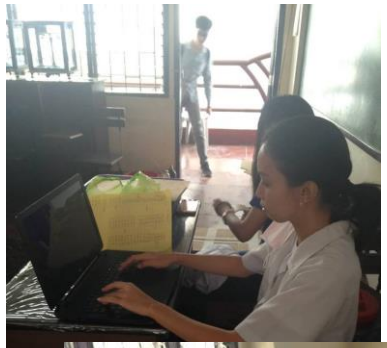






2018 – Laboratory Leaders (PRESENTERS)
STUDENTS ORIENTATION FOR CS LAB PROTOCOLS

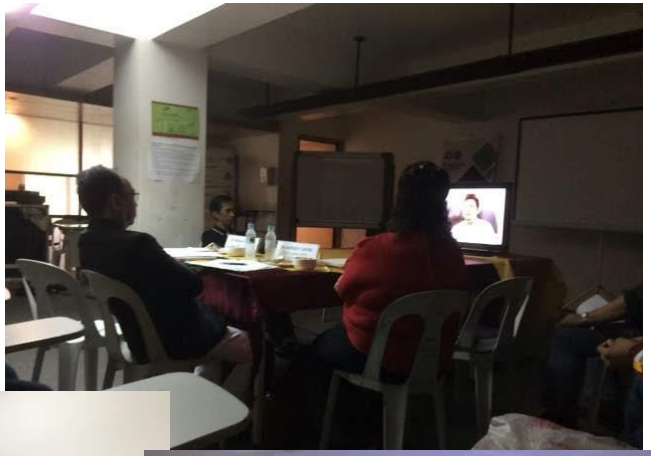
2018 - CHEMICAL WASTE MANAGEMENT

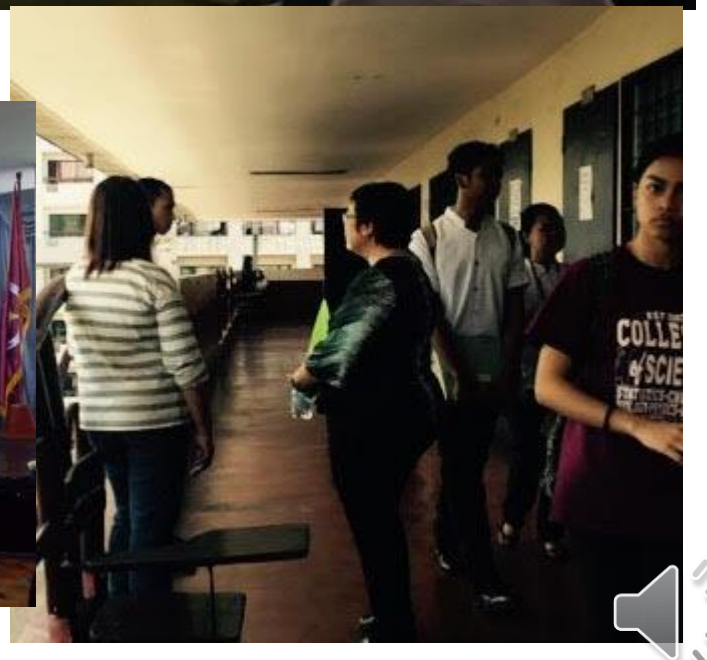


INSTRUMENT INSTALLATIONS, LAB REPAIRS AND MAINTENANCE

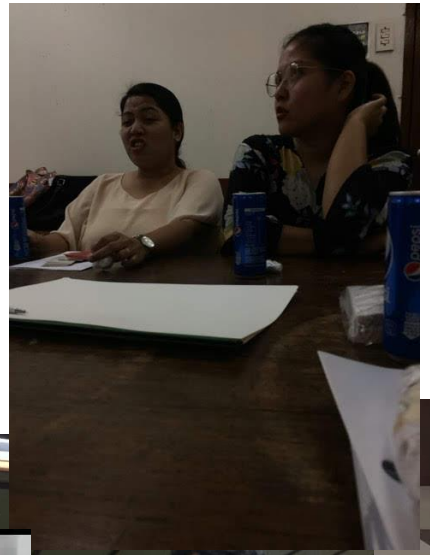
ASSISTANCE TO CHED PRC JOINT ACCREDITATIONS FOR BS CHEMISTRY PROGRAM

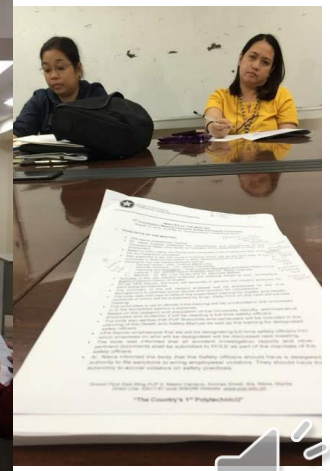
ASSISTANCE TO ISO AUDIT, AACCUP PROGRAM ACCREDITATIONS





2018 COLLEGE AND UNIVERSITY EVENTS PARTICIPATION





2018 - CHRISTMAS PARTY2018
LABORATORY YEAR END PARTY

STRICT IMPLEMENTATION OF SAFETY GUIDELINES

2019- HIRING AND CREATION OF CASUAL POSITIONS AS EMERGENCY CHEMIST , 2021 – JOB ORDER LAB TECHNICIANS

- Hiring of 2 additional personnel for the College of Science Laboratory

Chemical Engr. Ana Brenda Juan hired in the CS-Engineering Building

ENGR. ANA BRENDA JUAN

Miss Acosta was hired as Chemical Technician PUP Alumni, BS Chemistry Batch 2018 at the main building

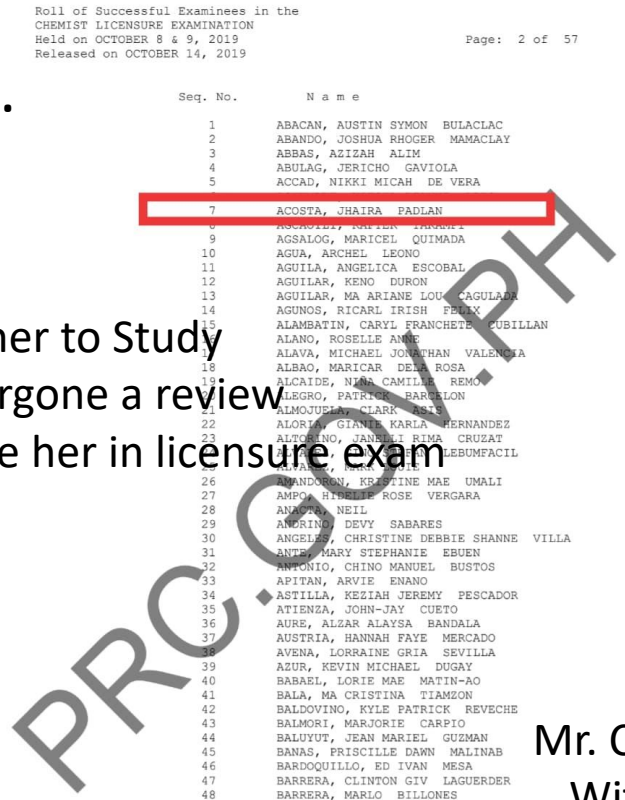
JHAIRA P ACOSTA, RCh.

2019-CS LABORATORY STAFF PREPARE FOR CAREER GROWTH

JHAIRA P ACOSTA, Chem. Tech.

Miss Acosta now is a Register Chemist

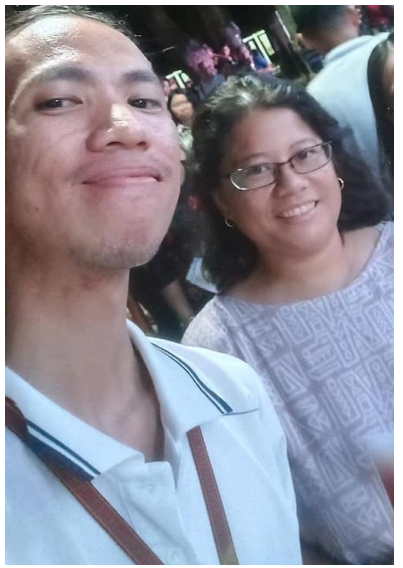
Allowed her to Study
She undergone a review
to prepare her in licensure exam



Roll of Successful Examinees in the
CHEMIST LICENSURE EXAMINATION
Held on OCTOBER 8 & 9, 2019 Page: 2 of 57
Released on OCTOBER 14, 2019

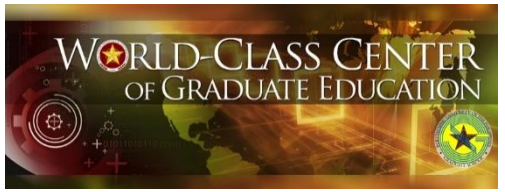
Seq. No.	Name
1	ABACAN, AUSTIN SYMON BULACLAC
2	ABANDO, JOSHUA RHOGER MAMACLAY
3	ABBAS, AZIZAH ALIM
4	ABULAG, JERICHO GAVIOLA
5	ACCAD, NIKKI MICAH DE VERA
7	ACOSTA, JHAIRA PADLAN
9	AGSALOG, MARICEL QUIMADA
10	AGUA, ARCHEL LEONO
11	AGUILA, ANGELICA ESCOBAL
12	AGUILAR, KENO DURON
13	AGUILAR, MA ARIANE LOU CAGULADA
14	AGUNOS, RICARL IRISH FELIX
15	ALAMBATIN, CARYL FRANCHETE CUBILLAN
16	ALANO, ROSELLE ANNE
17	ALAVA, MICHAEL JONATHAN VALENCIA
18	ALBAO, MARICAR DELA ROSA
19	ALCAIDE, NINA CAMILLE REMO
20	ALEGRO, PATRICK BARCELON
21	ALMOJUELA, CLARK ASIS
22	ALORIA, GIANIE KARLA HERNANDEZ
23	ALTORINO, JANELLI RIMA CRUZAT
24	AMANCIO, [illegible] LEBUMFACIL
25	AMANDORON, [illegible]
26	AMANDORON, KRISTINE MAE UMALI
27	AMPOS, HIDELIE ROSE VERGARA
28	ANACTA, NEIL
29	ANDRINO, DEVY SABARES
30	ANGELES, CHRISTINE DEBBIE SHANNE VILLA
31	ANTE, MARY STEPHANIE EBUEN
32	ANTONIO, CHINO MANUEL BUSTOS
33	APITAN, ARVIE ENANO
34	ASTILLA, KEZIAH JEREMY PESCADOR
35	ATIENZA, JOHN-JAY CUETO
36	AURE, ALZAR ALAYSA BANDALA
37	AUSTRIA, HANNAH FAYE MERCADO
38	AVENA, LORRAINE GRIA SEVILLA
39	AZUR, KEVIN MICHAEL DUGAY
40	BABAEL, LORIE MAE MATIN-AO
41	BALA, MA CRISTINA TIAMZON
42	BALDOVINO, KYLE PATRICK REVECHE
43	BALMORI, MARJORIE CARPIO
44	BALUYUT, JEAN MARIEL GUZMAN
45	BANAS, PRISCILLE DAWN MALINAB
46	BARDOQUILLO, ED IVAN MESA
47	BARRERA, CLINTON GIV LAGUERDER
48	BARRERA, MARLO BILLONES
49	BARRIENTOS, CHICO POLO DILLA
50	BARTOLAY, AL-JADE MARAYAG

RONNEL H. CAPULI



Mr. Capuli is a CS laboratory Staff
With a position of Laboratory
Aide II-
Administrative Aide IV

Master in Information Technology



PUP GRADUATE SCHOOL

Allowed him to study a Master Degree of Information Technology

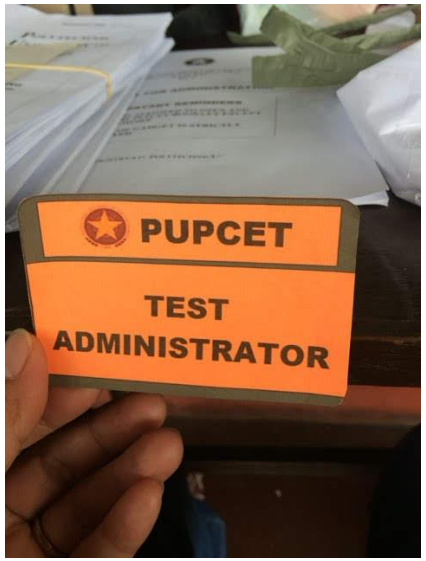
LABORATORY EXPANSION, DELIVERY OF EQUIPMENT, AND MAINTENANCE OF EQUIPMENT

2019 - ORGANIZED ROTARY MICROTOME TRAINING WITH GOLDENBAT, INC.

Conducted training for Microtome CS Laboratory Equipment

2019 - ORGANIZED OF GEL DOCUMENTATION, OVENS, ETC WITH KRYPTON, INC., SMALL LAB TOOLS WITH PACIFIC STAR

2019 ADMINISTRATIVE DUTIES, MEETINGS



2019 COLLEGE AND UNIVERSITY EVENTS

2019- COLLEGE OF SCIENCE ANNIVERSARY

2019 – ECHO SEMINAR PRESENTATION
CS PLANNING IN BAGUIO HOLIDAY VILLAS

Presenting the attended Davao Conference in our Echo Seminar Presentation- December

2019 – DONATION OF SMART TV FOR CS LABORATORY COLLEGE OF SCIENCE CHRISTMAS PARTY

BS Chemistry Alumni donated Smart TV for CS Laboratory-December

2019 - CHRISTMAS PARTY2019
LABORATORY YEAR END PARTY

2019 – SUPPLIER TRAINING NIR, SAFETY CABINETS

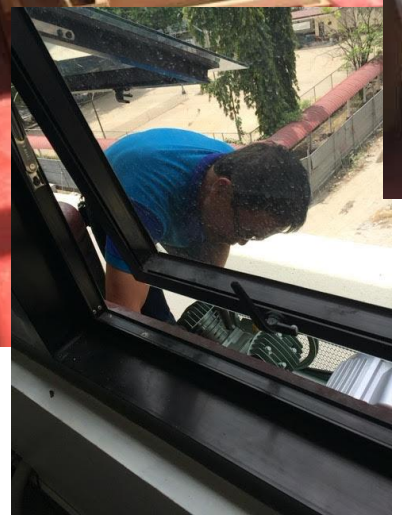
2019 – SUPPLIER FLASH CHROM TRAINING

2019 POST QUALIFICATION

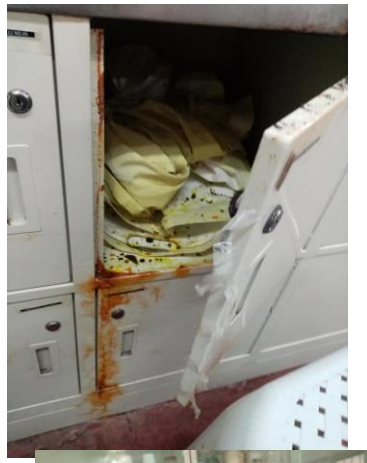
2019 QUALITY MANAGEMENT SYSTEMS

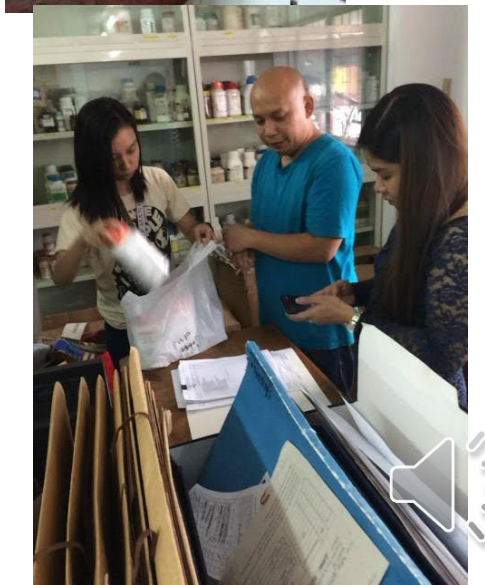
2019 LABORATORY MAINTENANCE MAIN BUILDING

2019 INSTALLATION OF EQUIPMENT TO ESRC



2019 LABORATORY MANAGEMENT

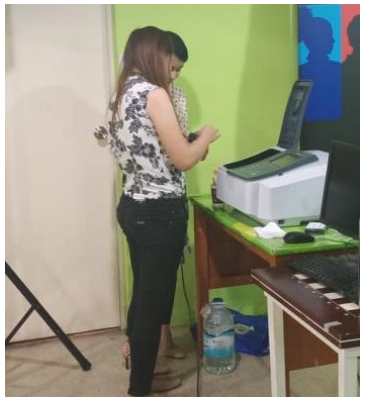




2019 – Meeting for Preparation for SY 2019-2020

CS Designee Meeting with Dean

2019 – THE SECOND CS FACULTY LABORATORY ORIENTATION WITH TRAINING FROM SHIMADZU PHILS.



Second Faculty Orientation with Equipment Training of UV -VIS

ACTIVITIES CONDUCTED ACADEMIC AFFAIRS

ABIGAIL P. CID

BALIK SCIENTIST

2018 - 2020

2018 – CONDUCT OF CLASSES, ATTENDED MASS FOR BOARD EXAMINEES AND TESTIMONIAL FOR PASSERS

CHEMICAL SOCIETY

VISION

The PUP Chemical Society envisions itself as the central body that represents the chemistry students of the Polytechnic University of the Philippines, College of Science.

MISSION

The PUP Chemical Society commits itself to support the development and promote camaraderie among the members of the society.

EXECUTIVE BOARD

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
College of Science
Department of Physical Sciences
PUP CHEMICAL SOCIETY
Santa Mesa, Manila

October 2, 2018

Dr. Abigail Cid Andres
College of Science
This University

Dear **Dr. Andres**,

The PUP Chemical Society will conduct its semestral **Physical Chemistry Congress** with the theme, **"Harmonically Elucidating the Boundless Dimensions of Physical Chemistry".** It aims to serve as a platform amongst students to indulge in interactive discussions regarding the applications of Physical Chemistry in various fields.

In line with this, it is our pleasure to ask if you would be willing to be one of the panelists on the said event. This **Physical Chemistry Congress** will be held on **October 2 and 3, 2018 (Tuesday & Wednesday)** at the **6F South Lobby of the Main Bldg** from **8:00AM to 5:00PM**.

2018 Student Researches advised

THESIS DEFENSE

PUBLICATIONS

- Submitted 17 research papers to international journals
- Published 1 paper

Journal of Bioremediation & Biodegradation

Berina et al., J Bioremediat Biodegrad 2018, 9:3
DOI: 10.4172/2155-6199.1000436

Research Article Open Access

Biodegradability Study of Potassium Hydrogen Phthalate and Benzene Using BOD5 Seed as Inoculum

Leoro Ina Mae Berina, Sto Domingo Angelika Marie Ricohermoso, Velasco Arnelli Charmaine Tejada, Cambiador Christian Jay Bautista and Cid-Andres Abigail P*

Department of Physical Sciences, Polytechnic University of the Philippines, Anonas Street, Sta. Mesa, Manila, Philippines

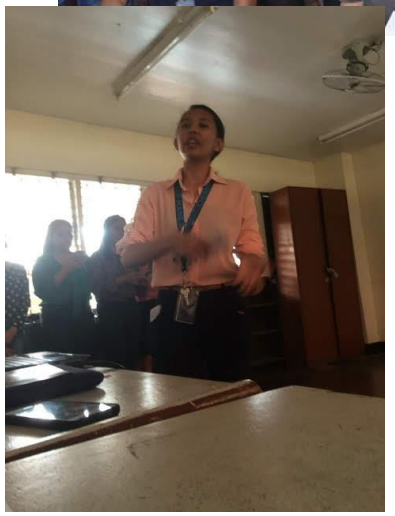
***Corresponding author:** Cid-Andres Abigail P, Department of Physical Sciences, Polytechnic University of the Philippines, Anonas Street, Sta. Mesa, Manila, Philippines, Tel: +639264060482; E-mail: inamaeleoro@gmail.com

Rec date: March 12, 2018; **Acc date:** April 10, 2018; **Pub date:** April 13, 2018

Abstract

Benzene and Potassium Hydrogen Phthalate (KHP) with their immeasurable applications lead to tons of generated waste. Biodegradation is considered to be a remedy for this issue and the usage of Activated Sludge is the most dominant method used among these days. However issues of variation in its content arose and thus the usage of standardized inoculum offered opportunities to surpass these disadvantages, this study aims to test the effectivity of BOD5 Seed inoculum in degradation of Benzene and KHP and eventually apply its effectivity to aqueous organic waste. The samples were tested for Dissolved Oxygen (DO) and Chemical Oxygen Demand (COD) Test for initial analysis before it was prepared for the biodegradation process. During the biodegradation process, pH 6-8 was maintained for it was the desired environment of the seed inoculum. Monitoring was conducted through COD test. The degraded benzene sample was then subjected for GC-MS analysis. The 1000 ppm benzene

2019 THESIS ADVISING, COORDINATION, PANEL



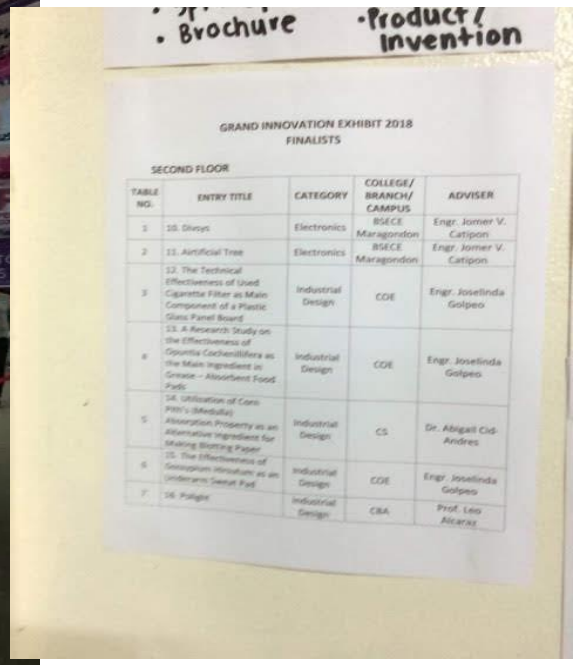
TITLE	NAME
EXTRACTION OF Zn METAL IN SYNTHETIC SEAWATER USING EDTA-MODIFIED RICE HUSK ASH (RHA) SOLID PHASE RESIN	FRANCISCO, HUGO, SAN JOSE
CHARACTERIZATION OF *IMPERATA CYLINDRICA* NATURAL REINFORCED POLYMER USING XYLANASE AS A COUPLING AGENT	CAUIOA, DECIERDO, PAMO
FABRICATION OF LOW-COST VISIBLE SPECTROPHOTOMETER FOR THE ANALYSIS OF IRON 3+ CONCENTRATION IN GROUND WATER	MORENO, ILAGAN, CAGOYONG
GREEN SYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLE COMPOSITE WITH POLYURETHANE FOAM USING *PREMNA ODORATA* (ALAGAW) FRUIT EXTRACT	MENDEZ, PEÑARANDA, RAMOS
SYNTHESIS AND CHARACTERIZATION OF 5, 10, 15, 20-TETRAPHENYLPORPHYRIN FOR METHOD DEVELOPMENT IN QUANTITATION OF ZING	BUENO, CLEMENTE, VILLALUNA
EVALUATION OF SUPERACTIVATED CARBON-MAGNETITE NANOCOMPOSITE AS AB ADSORBENT FOR Cr (VI) AND Cu(II) IONS IN AQUEAOUS SOLUTION	ANTONIO, CAFE, ZIPAGAN
TITLE	**NAME**
SIMULTANEOUS ADSORPTION OF COBALT (II) AND COPPER (II) USING CORNCOB- ALGINATE BEADS	ARQUILADA, ILANO
DEVELOPMENT OF Ag-Cu NANOPARTICLES INCORPORATED IN LOCAL ABACA FIBER (MANILA HEMP) AND ITS APPLICATION AS A NOVEL ANTIBACTERIAL WATER FILTER	GARCIA, PEROJA, TUBERON
KINETIC EQUILIBRIUM ISOTHERM STUDIES OF PRETREATED *ASPERGILLUS NIGER* BIOMASS FOR BIOSORPTION OF CADIUM (Cd)	DOLORES, MACABIQUIL, PAULO
FABRICATION OF LOW-COST DISSOLVED HYDROGEN SULFIDE SENSOR USING SILVER-CARBON NANOPARTICLE COMPOSITES	BERNANRDO, CRISTOBAL, MANALO
FABRICATION OF WEB-CAM BASED SPECTROFLUOROMETER FOR TRACE ANALYSIS OF RHODAMINE B IN SALTED EGG SHELLS	PASCUA, PRADO, SOLIS

- Published 8 review papers

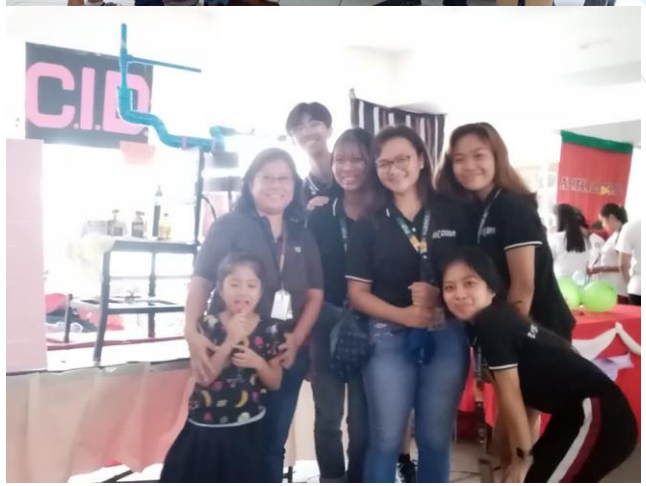
Organized chemistry research congress

2018 – ACCEPTED SHS STUDENT IMMERSION, PUP SHS AND PASIG CITY SCIENCE HIGH SHOOL RESEARCH ASSISTANCE

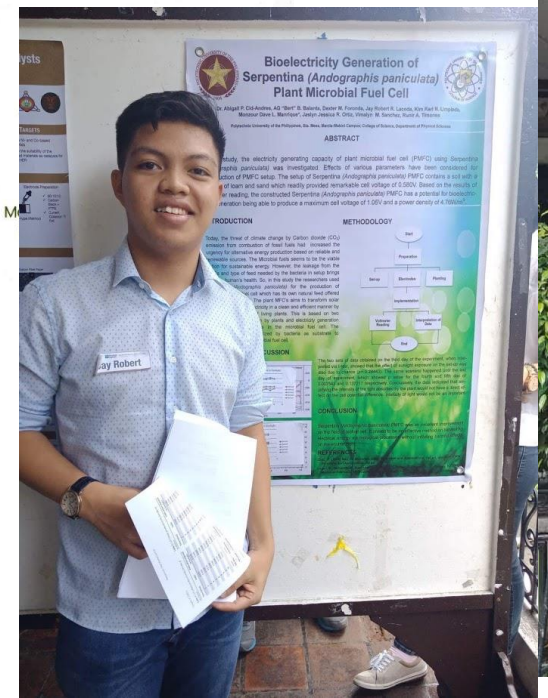
2018 GRAND INNOVATION



2019 Grand innovation exhibit



SYMPOSIUM TALK



2019 Regional invention competition and exhibit (RICE)

2019 NSTW

2019 IMMERSION STUDENTS

INTERVIEW FOR SCHOOL PROJECT
PUP SAN JUAN STUDENTS

2019 – CONDUCT OF CHEMISTRY CLASSES BS PHYSICS, BS CHEMISTRY

Classes

CONDUCT OF CHEMISTRY CLASSES
BS BIOLOGY, BS PHYSICS, BS CHEMISTRY

2019 UNDERGRADUATE CHEMISTRY SEMINARS

ACTIVITIES CONDUCTED RESEARCH & COLLABORATIONS

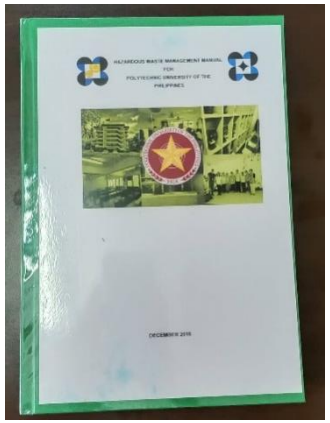
ABIGAIL P. CID

BALIK SCIENTIST

2018 - 2020

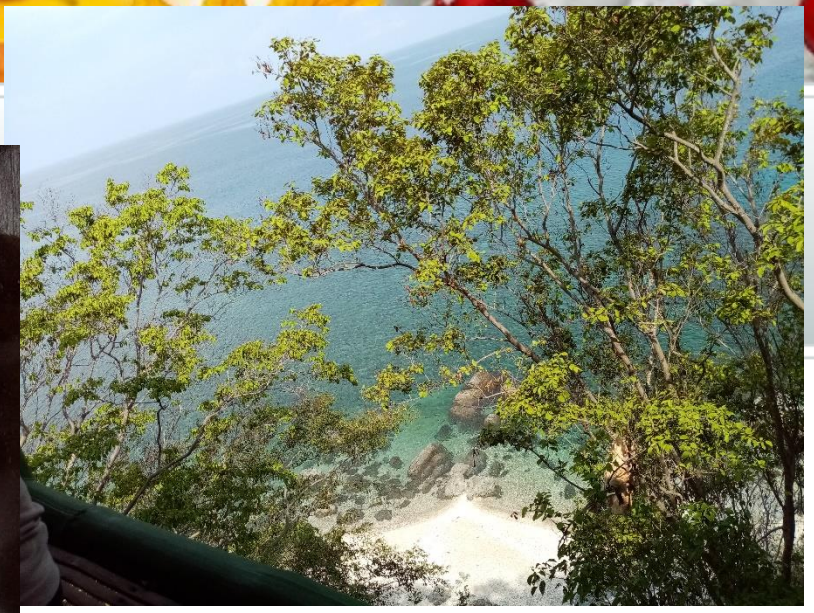
2018 ASSISTANCE TO ITDI PUP RESEARCH

2018 – Assessment of the chemical safety & Hazardous Waste management Program



The Project Funded of DOST for Supporting Waste Management

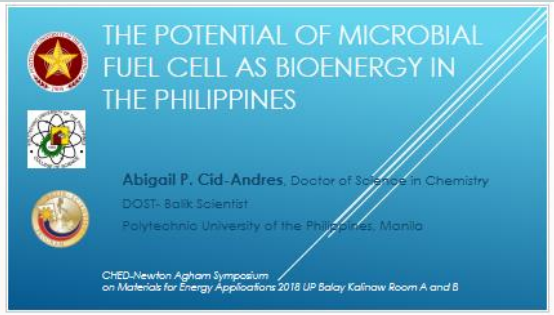
RESEARCH



Preliminary observations on the conditions of the sea in Brgy. Imelda, San Juan, Batangas

RESEARCH

Microbial Fuel Cells



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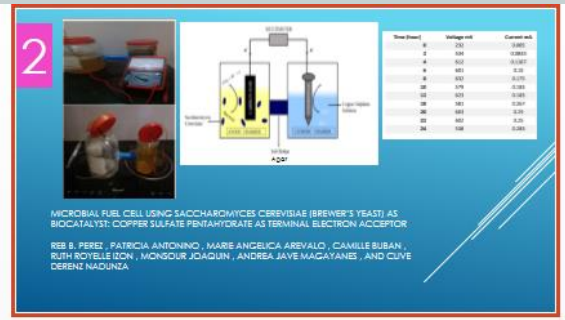
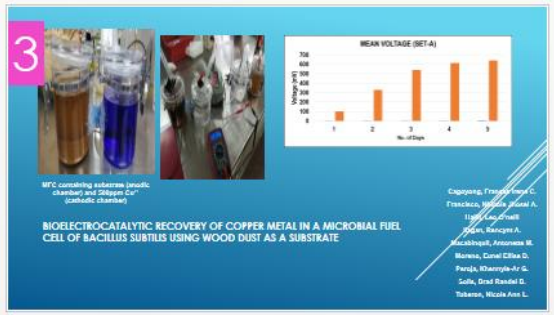


3



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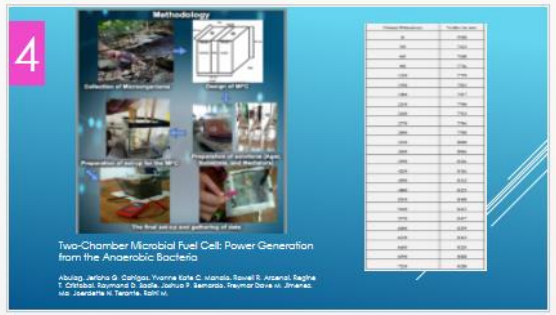

5

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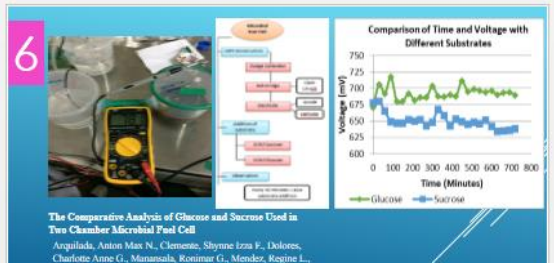

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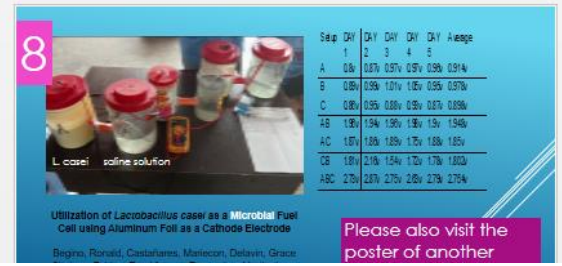


PUP USAID SALINAS CORPORATION FACULTY EXTERNSHIP

RESEARCH ON IRON ADDITION TO SALT WITHOUT OXIDATION

2018 Proposals (PCARRD, UKRI)

Assisted in CHED Newton Fund
Leveraging smart infrastructure innovations to achieve safe, smart sustainable management of road networks in the Philippines
Project Leader Aziz Zeeshan (Salford University, UK), Manuel M. Muhi (PUP)

PROPOSALS (DOST PCIEERD, DOST NICER, DOST CRADLE, CHED UKRI)

EXTERNAL REVIEWER

LETTER OF ENGAGEMENT AS PEER REVIEWER
FOR THE NORTHERN PHILIPPINES JOURNAL

13 August 2018

Dr. Abigail Cid-Andres
Polytechnic university of the Philippines

Dear Dr. Andres:

Greetings from the Isabela State University (ISU)!

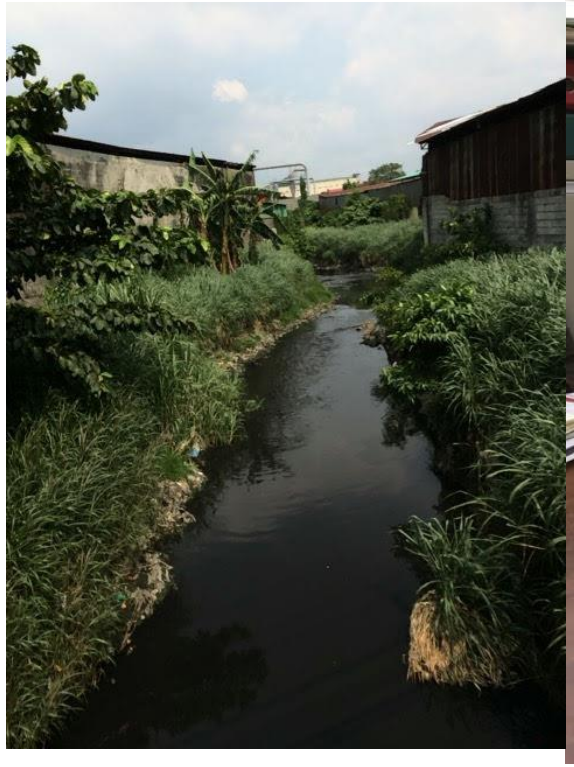
The ISU's Northern Philippines Journal (NPJ) would like to request and invite you as one of the experts to review research and development papers submitted for possible publication along your field of expertise. NPJ is a peer-reviewed academic journal published by ISU and it addresses issues in the various fields of specialization and disciplines.

To ensure high quality articles for publication in the NPJ, papers are subjected to peer review process. Hence, may we request you to kindly review the following paper submitted to the journal:

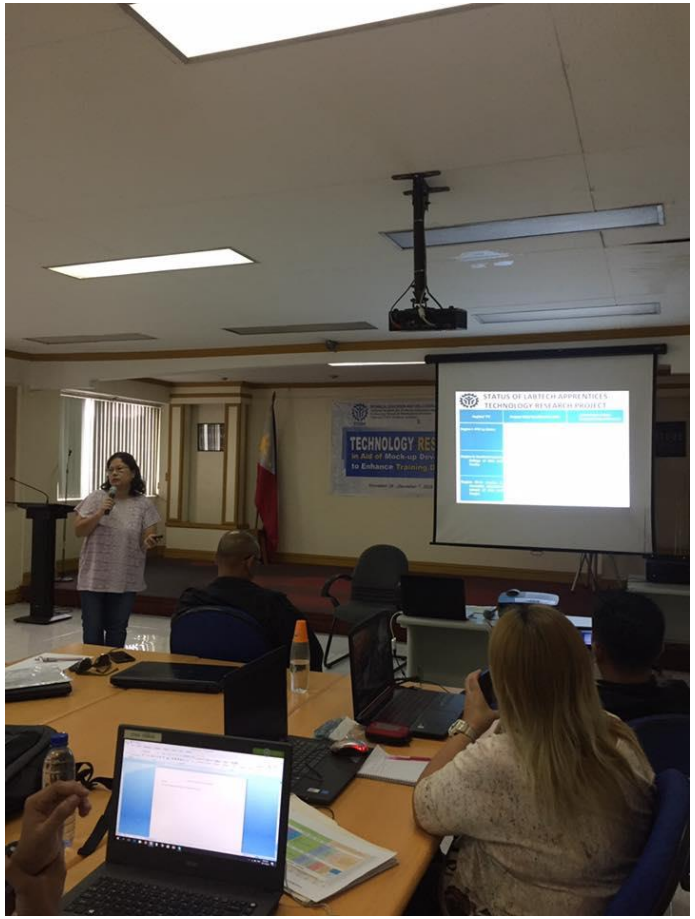
"Croton oil Croton tiglium water extracts as potential piscicides under simulated farm condition"

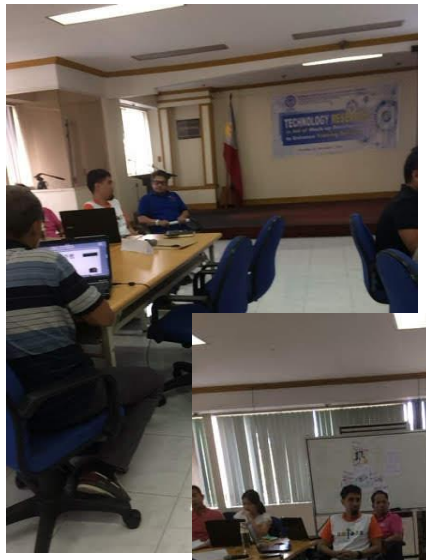
Hoping for your acceptance to our invitation as paper reviewer to our journal article/s. Should you have further queries, kindly email us at this address, northernphil.journal@gmail.com.

FIELD SURVEYS



2018 TESDA PROPOSAL WRITING TRAINING



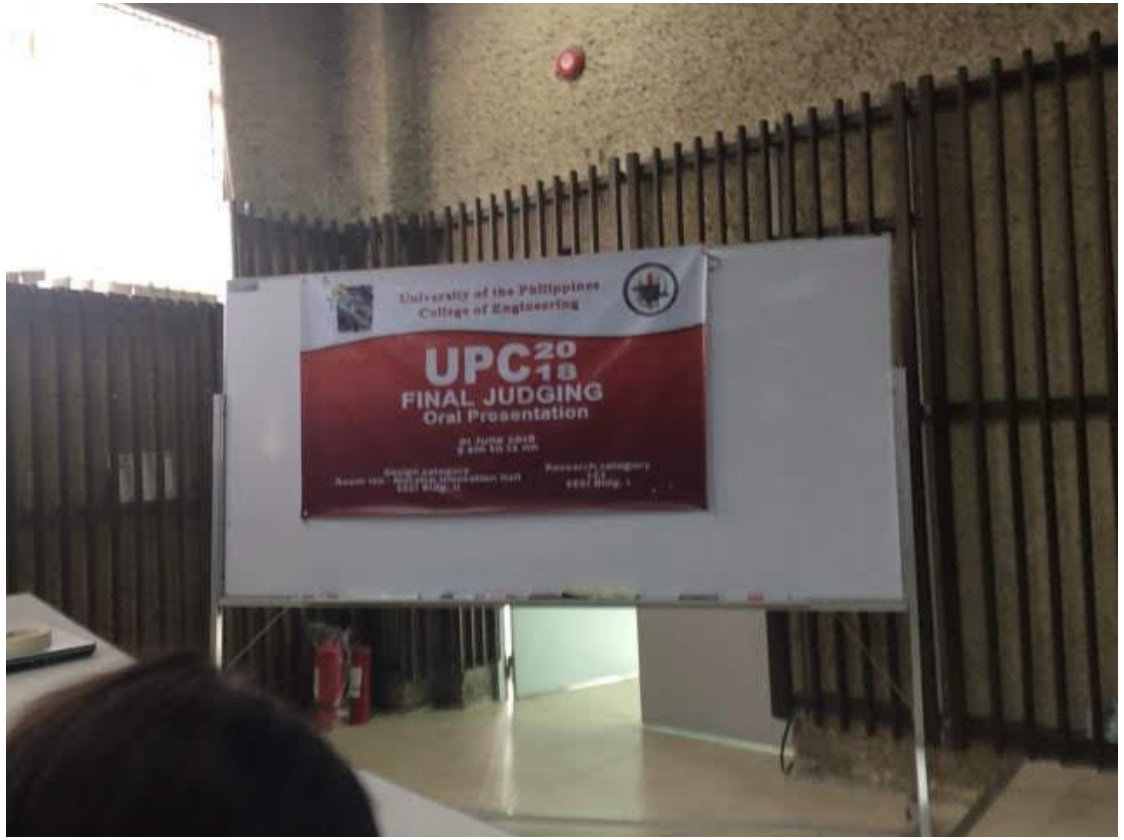


TESDA

2018 CONFERENCES

NRCP ASSOCIATE MEMBERSHIP

INVITED EVALUATOR FOR UP DILIMAN ENGINEERING RESEARCH COMPETITION



2019 Visit to USTP

2019 Visit to TESDA Isabela

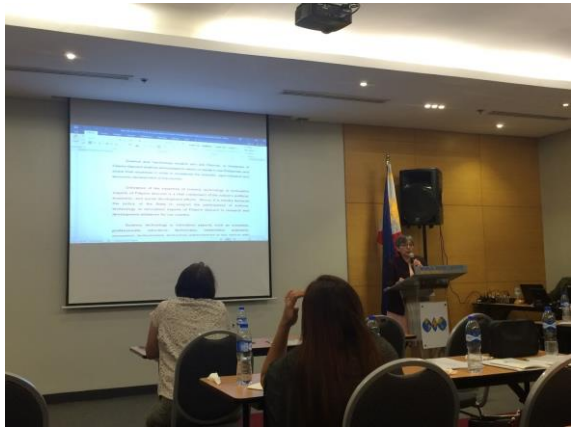
2019 PARTICIPATION TO ISTEC AS COMMITTEE MEMBER

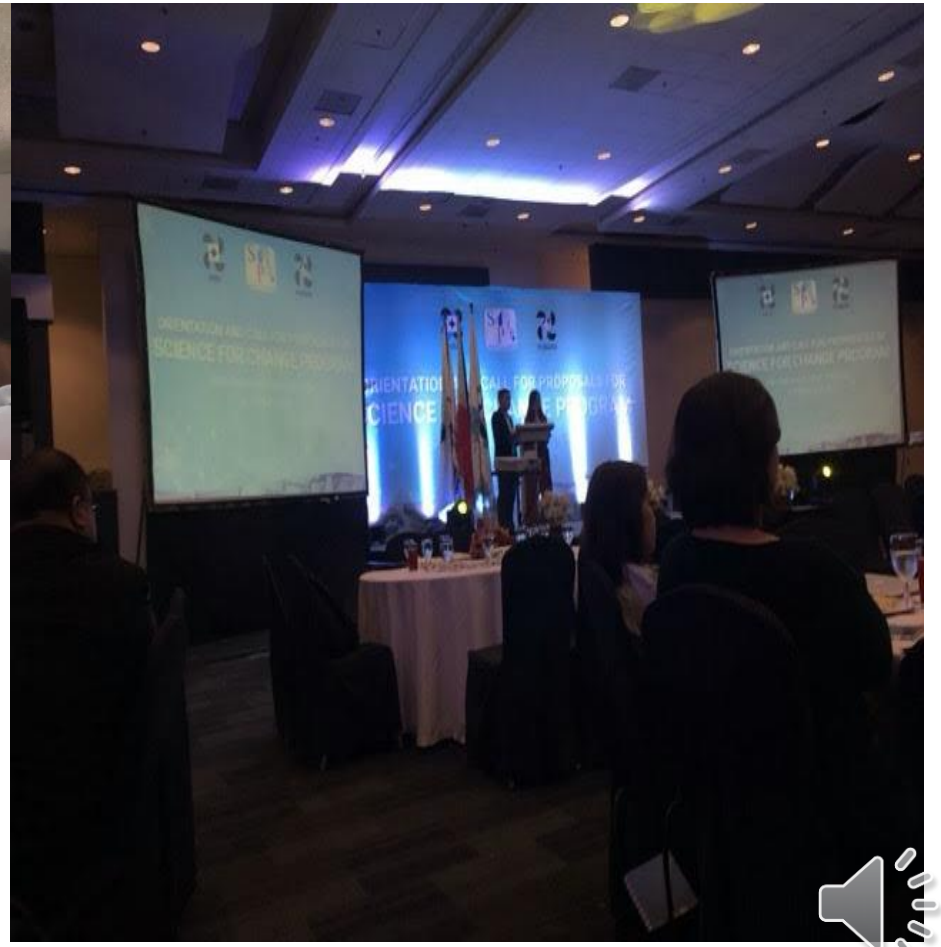
2018 DOST, MMIEERDC EVENTS

Thread

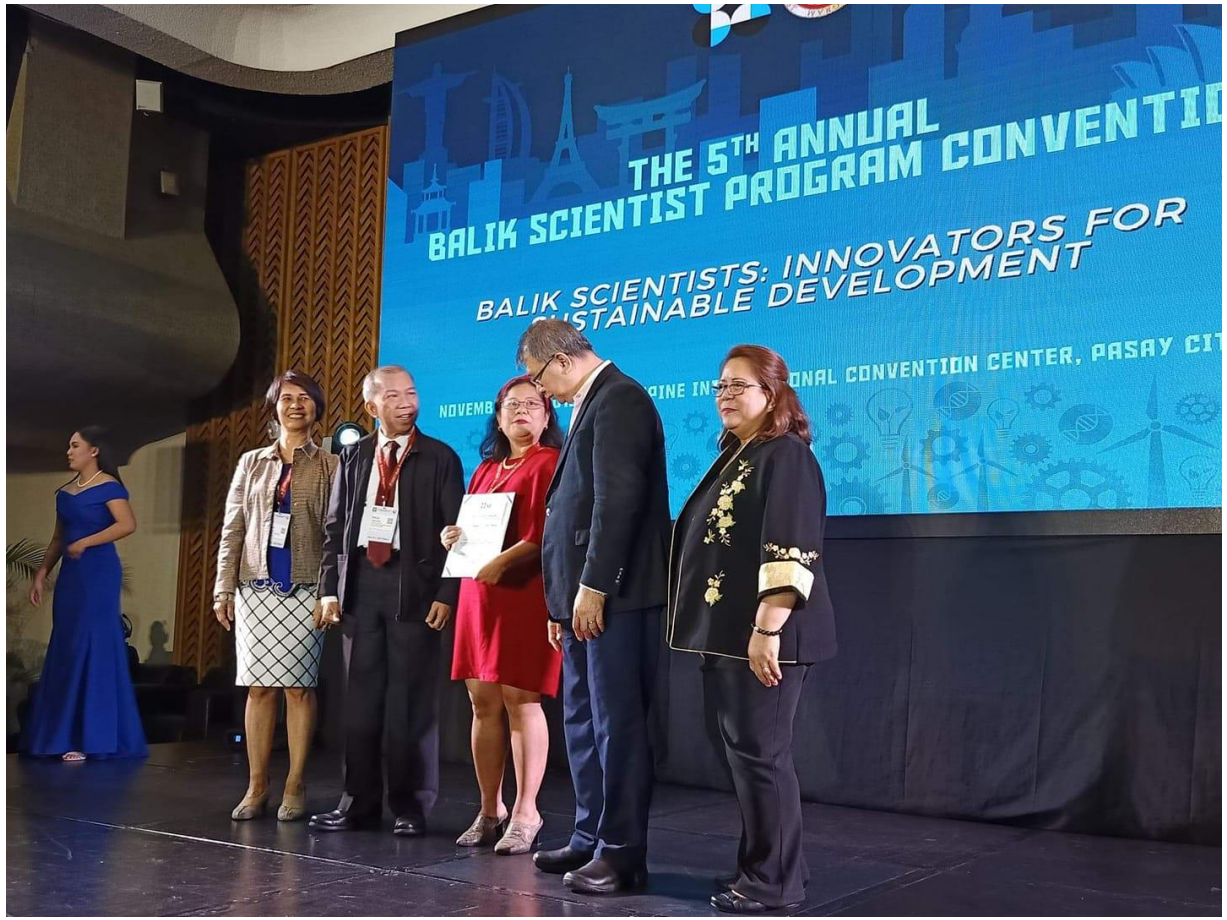
Dexter Cabalza @dexcabalzaINQ · Jul 17, 2018

LOOK: Also at the opening of #NSTW2018 are Balik Scientists from Japan, husband & wife Ginno Andres & Abigail Cid, who are currently faculty members of Polytechnic University of the Philippines.



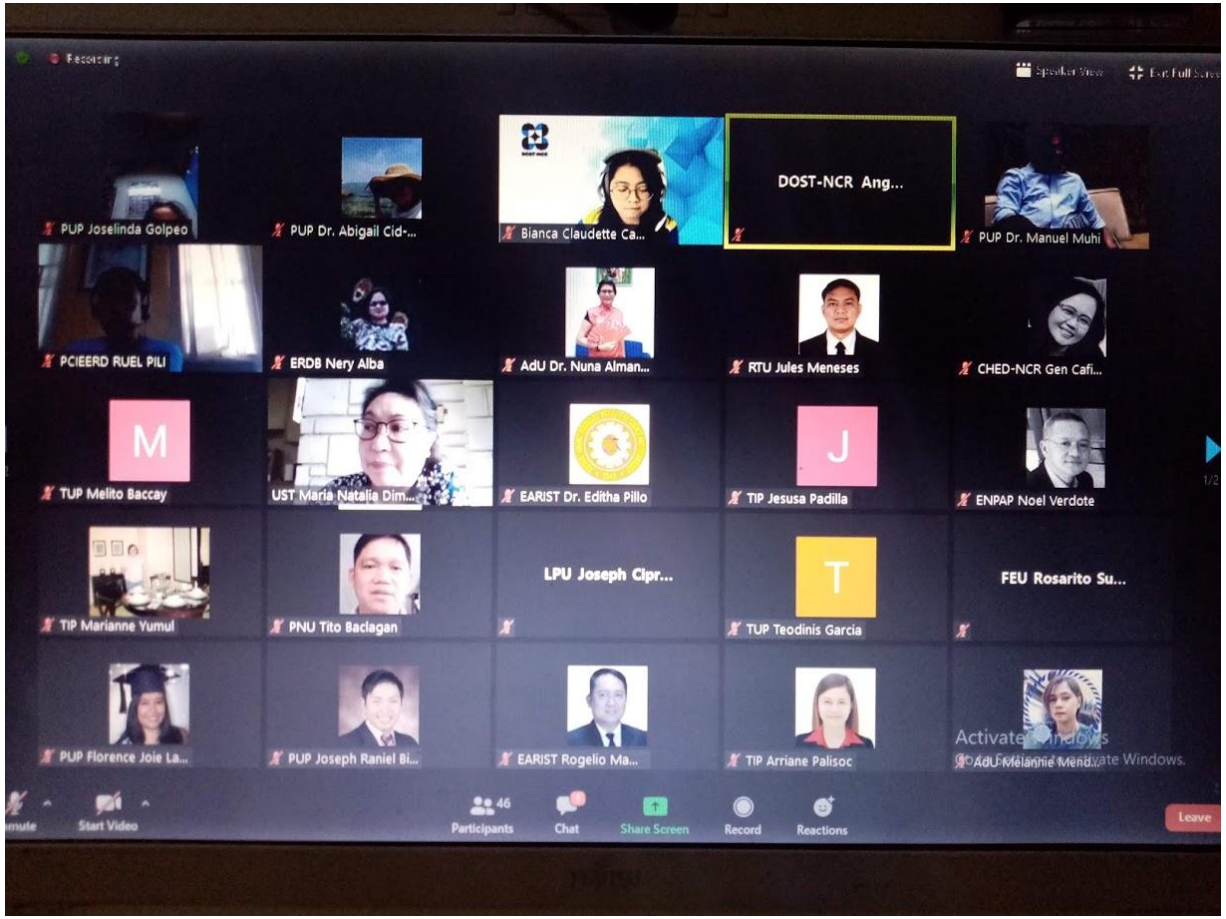


2019 DOST, NRCP EVENTS PARTICIPATION



2019 DOST, NRCP, NAST EVENTS PARTICIPATION

2020 PARTICIPATION TO MMIEERDC MEETINGS



INNOVATIONS SUMMIT AND SEMINARS ATTENDANCE

BSP EXIT PRESENTATION

Seminars ipo

Indonesia conference paper presenter

From Stable Isotopes to Social Approach in Conserving Lake Biodiversity

- Abigail P. Cid-Andres*, Uhram Song, Jun'ichiro Ide, Takuya Ishida, Adina Paytan, Tomoya Iwata, Ken'ichi Osaka, Ichiro Tayasu and Noboru Okuda

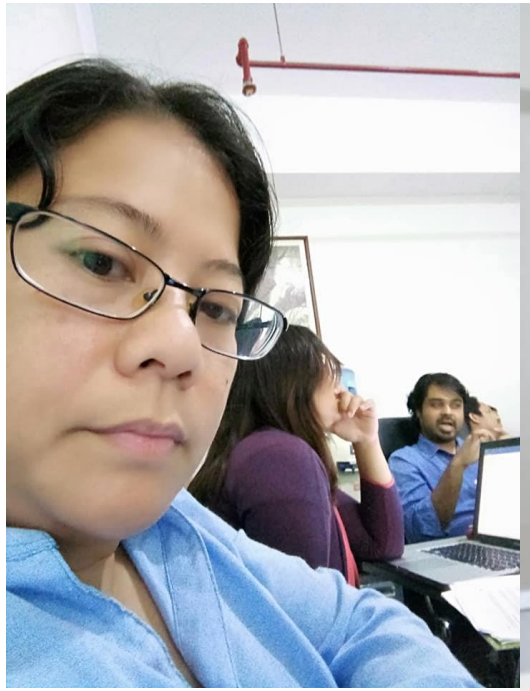
INTERNATIONAL BIODIVERSITY CONFERENCE 2019
Mati City, Davao Oriental
November 11-15, 2019

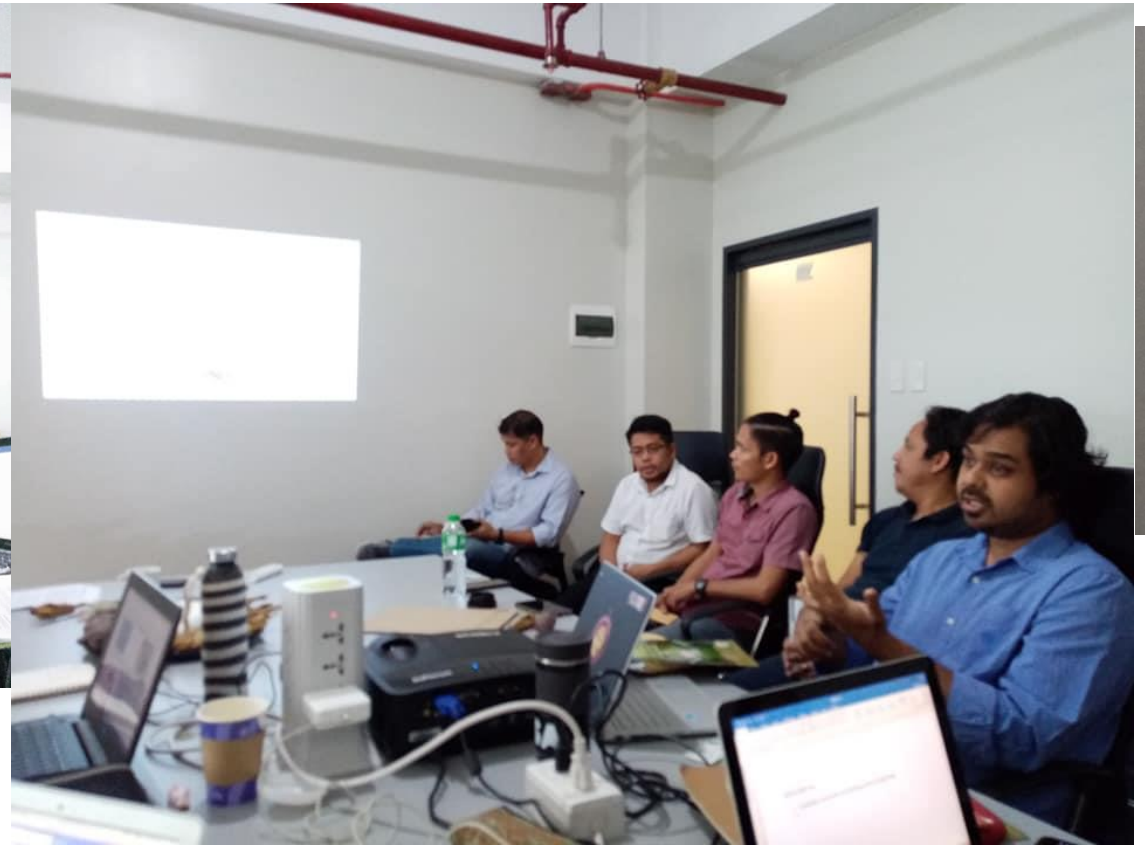
Center for Ecological Research, Kyoto University

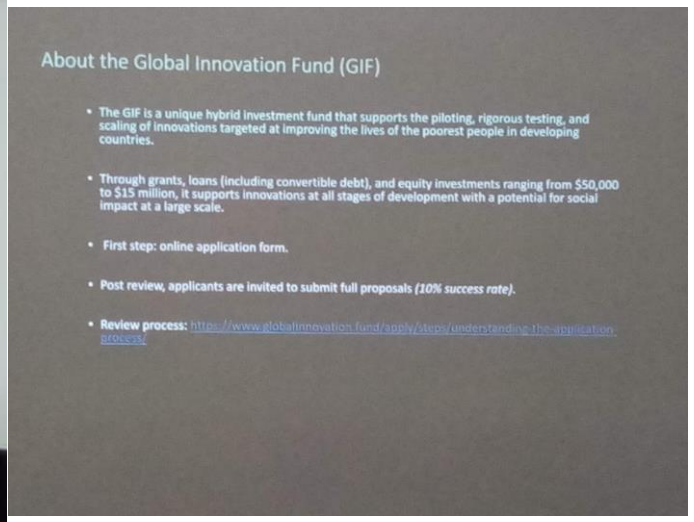
大学共同利用機関法人 人間文化研究機構
総合地球環境学研究所
Research Institute for Humanity and Nature

2019 Kyoto university officials meet with alumni

2019 INTERNATIONAL COLLABORATION PROPOSAL MEETING







Research collaboration meeting CREST with Arizona State University

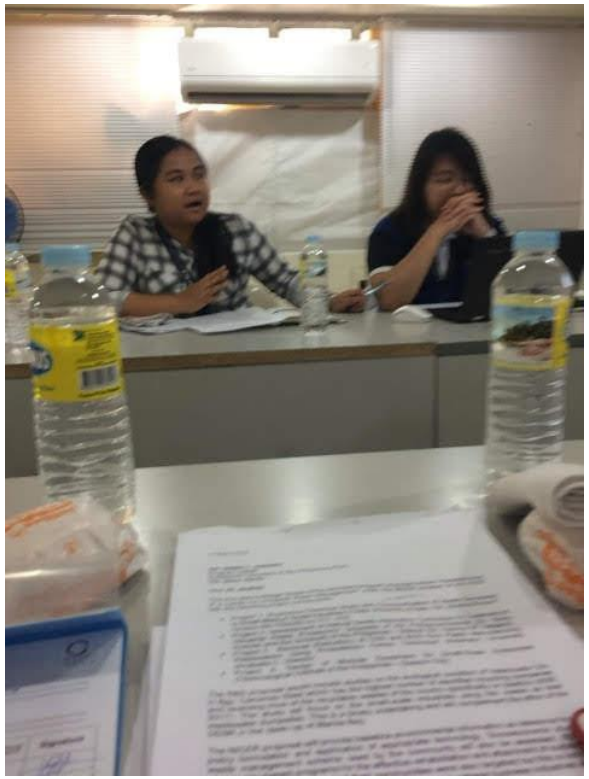
2019 DOST VISIT, MEETING, PROPOSAL EVALUATION

2019 DOST PROJECT IMPLEMENTATION

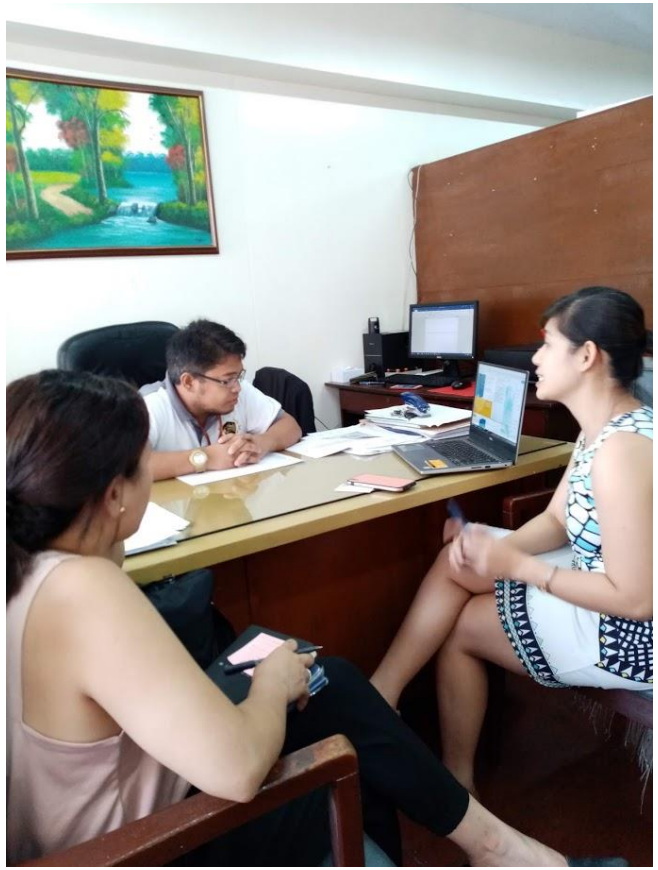
MIRDC MEETING

2019 Research Grant APPROVAL (ENERGY)

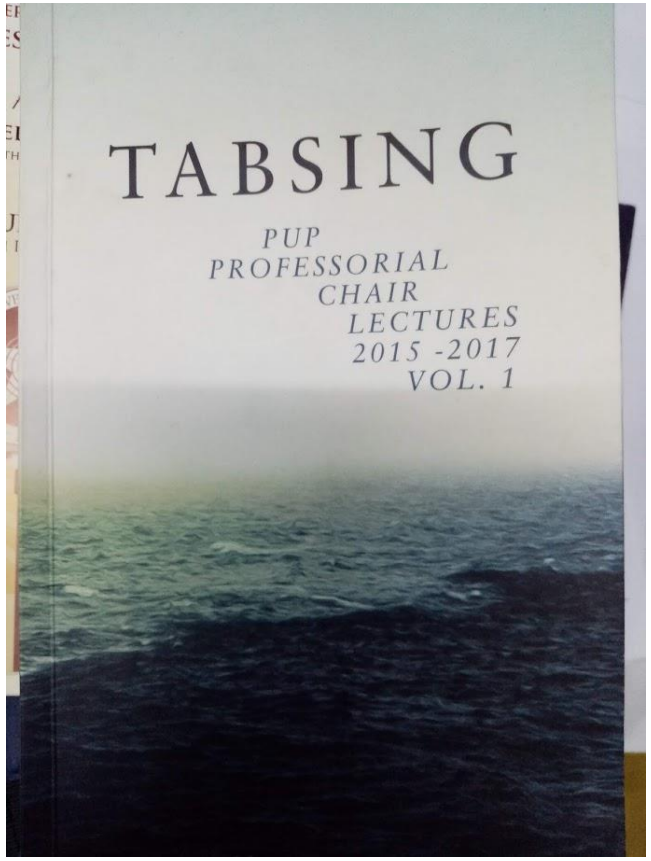
2019 Proposal collaboration meetings

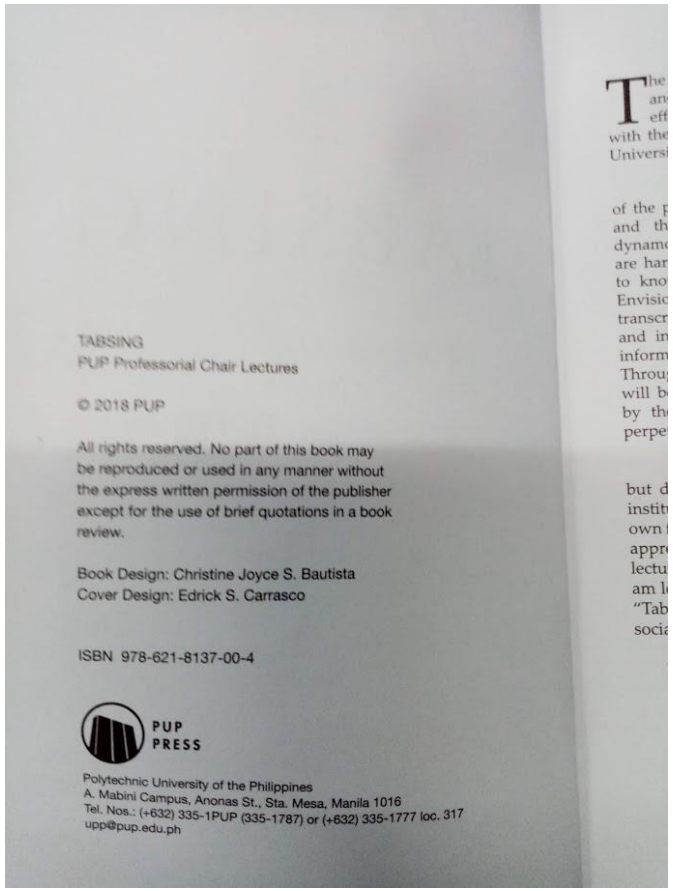


2019 Suppliers meeting



PUBLICATIONS




TABSING
PUP Professorial Chair Lectures

Book Design: Christine Joyce S. Bautista
Cover Design: Edrick S. Carrasco

ISBN 978-621-8137-00-4

PUP PRESS

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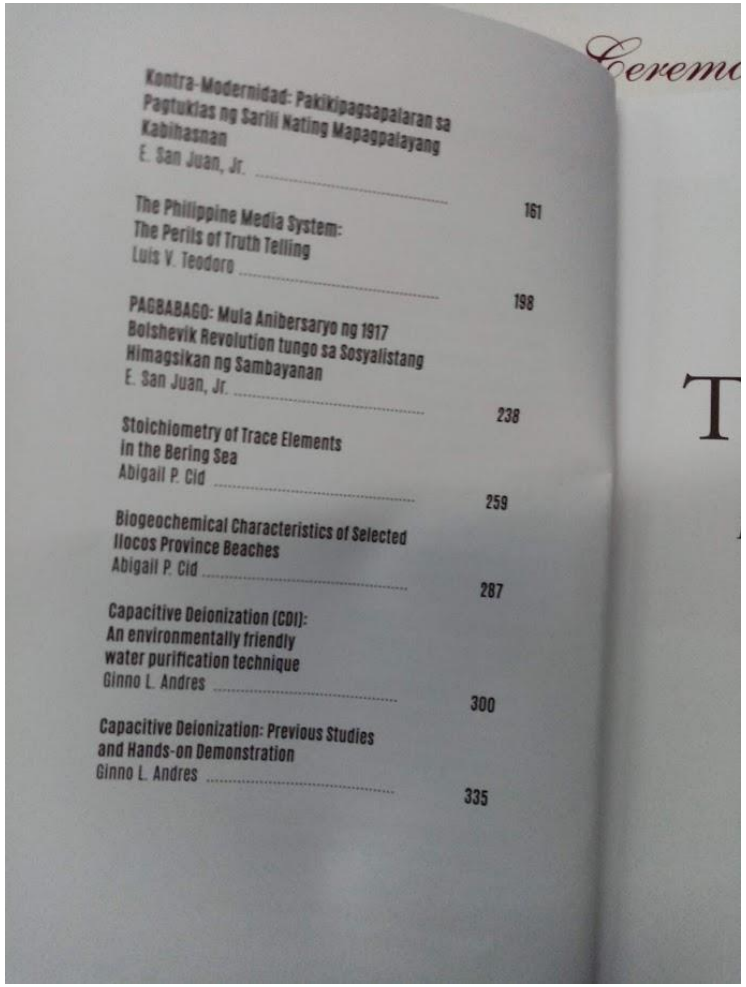
Tel. Nos.: (+632) 335-1PUP (335-1787) or (+632) 335-1777 loc. 317
upp@pup.edu.ph



2018-2019 PUBLISHED PAPERS

GSJ: Volume 7, Issue 1, January 2019
ISSN 2320-9186

Global Scientific JOURNALS

GSJ: Volume 7, Issue 1, January 2019, Online: ISSN 2320-9186
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Polytechnic University of the Philippines

College of Science

Department of Physical Sciences

A Review on Synthesizing Silver Nanoparticles through Gre
and the Assessment of their Methodology and Resu

Dr. Abigail Cid-Andres, Regine L. Mendez, Aloha Bianca L. Peñaranda, Ange

GSJ: Volume 6, Issue 12, December 2018
ISSN 2320-9186

Global Scientific JOURNALS

GSJ: Volume 6, Issue 12, December 2018, Online: ISSN 2320-918
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ADSORPTION STUDIES OF HEAVY METALS AND DYES US CORN COB: A REVIEW

Anton Max Arquilada, Chelsea Jellene Ilano, Precious Pineda, Jose Mari Felicita, Dr. Abigail Cid-Andres

Corresponding email: antonmaxa22@gmail.com

Department of Physical Science, College of Science, Polytechnic University of the Philippines, Sta. Mesa Manila, 1016, Philippines

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An Abridged Review on Biosorption of Heavy Metals Using *Aspergillus Niger* as Sorbent Material

*Charlotte Anne G. Dolores, Antonette M. Macabinquil, Angelica L. Paulo, Jose Mari Felicita, Abigail P. Cid -Andres
Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Manila, Philippines 101
*charlotteannedolores@gmail.com

Highlights

- Isotherms and models frequently used for *A. Niger* biosorption
- Processes involved in biosorption
- Physiochemical factors that manipulate the biosorption property

Abstract

Due to technological and industrial advancement, rise in the number of pollutants bring serious environmental issues. Heavy metals are good example of pollutants that are dreadful due to their high toxicity. Along with variety of techniques studied to treat effluents containing hazardous materials, usage of biomaterial such as fungal biomass for removal of heavy metal was studied due to its high potential in reducing metal concentration on contaminated bodies of water through biosorption. Biosorption ability of *Aspergillus Niger*, factors involved in achieving optimal adsorption of heavy metals using fungal biomass; type and nature biomass, concentration of metal solution, and physiochemical factors affecting, and parameters used was reviewed including summarization and description of methods used in biosorption, result accumulated, and inferences on the effects manipulating the biosorption. It was concluded that, *Aspergillus Niger* biomass is an effective sorbent material that most likely follows pseudo-second-order reaction rate and best described using Langmuir isotherm model.

Keywords: Biosorption, heavy metals, biosorbent, kinetics, isotherm, isotherm model

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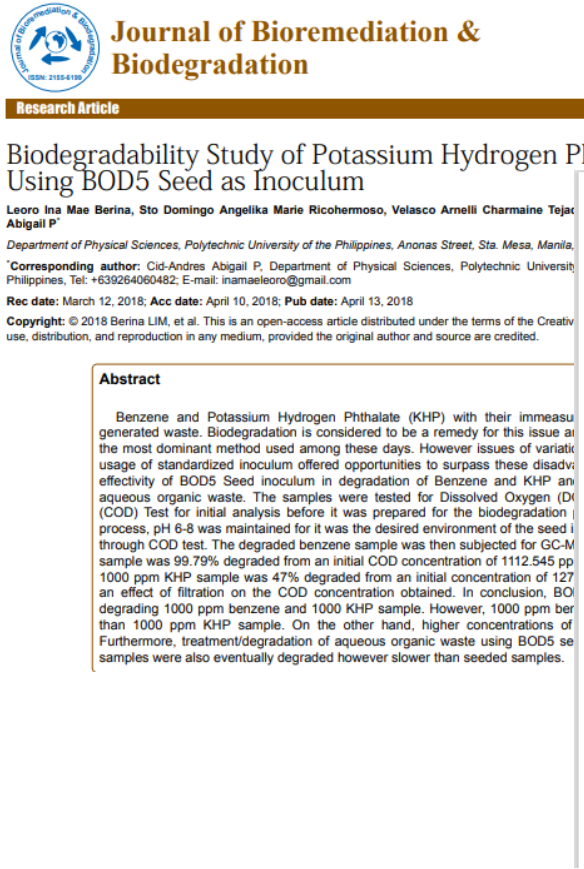


Journal of Bioremediation & Biodegradation

Berina et al., J Bioremediat Biodegrad 2018, 9:3
DOI: 10.4172/2155-6199.1000436

Research Article Open Access

Biodegradability Study of Potassium Hydrogen Phthalate and Benzene Using BOD5 Seed as Inoculum

Leoro Ina Mae Berina, Sto Domingo Angelika Marie Ricohermoso, Velasco Arnelli Charmaine Tejac Abigail P*

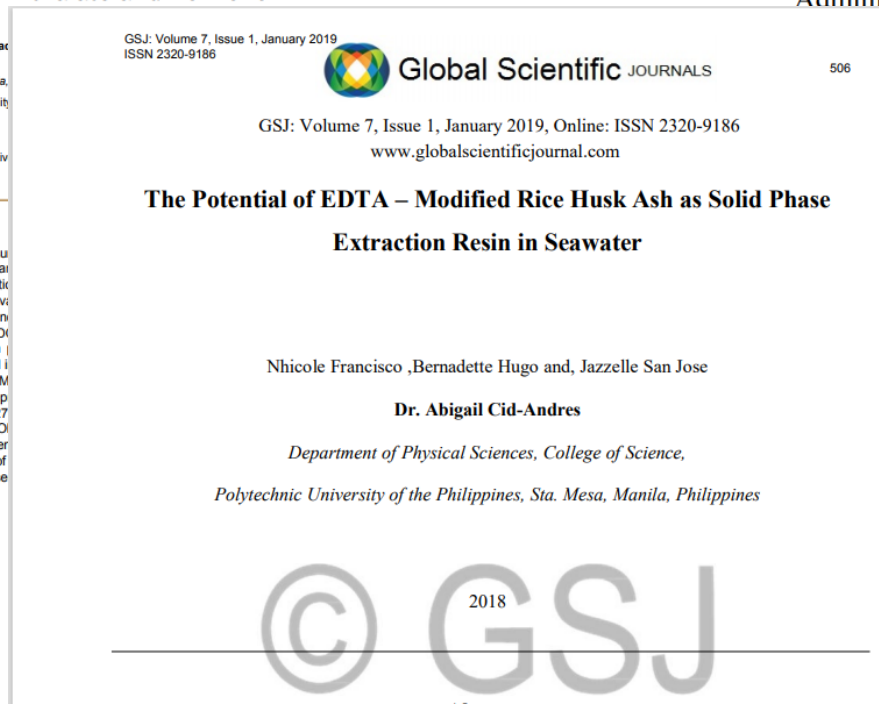
Department of Physical Sciences, Polytechnic University of the Philippines, Anonas Street, Sta. Mesa, Manila,

***Corresponding author:** Cid-Andres Abigail P, Department of Physical Sciences, Polytechnic University Philippines, Tel: +639264060482; E-mail: inamaeleoro@gmail.com

Rec date: March 12, 2018; **Acc date:** April 10, 2018; **Pub date:** April 13, 2018

Abstract

Benzene and Potassium Hydrogen Phthalate (KHP) with their immeasu generated waste. Biodegradation is considered to be a remedy for this issue a the most dominant method used among these days. However issues of variati usage of standardized inoculum offered opportunities to surpass these disadv effectivity of BOD5 Seed inoculum in degradation of Benzene and KHP an aqueous organic waste. The samples were tested for Dissolved Oxygen (D (COD) Test for initial analysis before it was prepared for the biodegradation process, pH 6-8 was maintained for it was the desired environment of the seed through COD test. The degraded benzene sample was then subjected for GC-M sample was 99.79% degraded from an initial COD concentration of 1112.545 pp 1000 ppm KHP sample was 47% degraded from an initial concentration of 127 an effect of filtration on the COD concentration obtained. In conclusion, BO degrading 1000 ppm benzene and 1000 KHP sample. However, 1000 ppm ber than 1000 ppm KHP sample. On the other hand, higher concentrations of Furthermore, treatment/degradation of aqueous organic waste using BOD5 se samples were also eventually degraded however slower than seeded samples.



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The Potential of EDTA – Modified Rice Husk Ash as Solid Phase Extraction Resin in Seawater

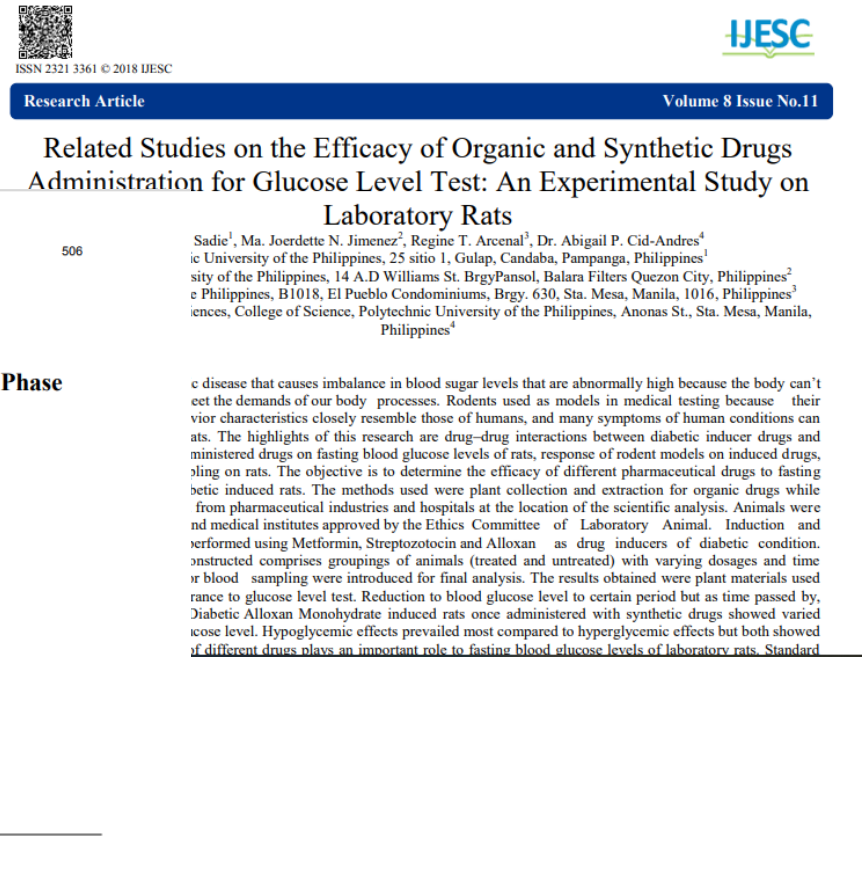
Nhicole Francisco ,Bernadette Hugo and, Jazzelle San Jose

Dr. Abigail Cid-Andres

Department of Physical Sciences, College of Science,

Polytechnic University of the Philippines, Sta. Mesa, Manila, Philippines

2018



ISSN 2321 3361 © 2018 IJESC

IJESC

Research Article Volume 8 Issue No.11

Related Studies on the Efficacy of Organic and Synthetic Drugs Administration for Glucose Level Test: An Experimental Study on Laboratory Rats

Sadie[1], Ma. Joerdette N. Jimenez[2], Regine T. Arcenal[3], Dr. Abigail P. Cid-Andres[4]
ic University of the Philippines, 25 sitio 1, Gulap, Candaba, Pampanga, Philippines[1]
sity of the Philippines, 14 A.D Williams St. BrgyPansol, Balara Filters Quezon City, Philippines[2]
e Philippines, B1018, El Pueblo Condominiums, Brgy. 630, Sta. Mesa, Manila, 1016, Philippines[3]
iences, College of Science, Polytechnic University of the Philippines, Anonas St., Sta. Mesa, Manila, Philippines[4]

c disease that causes imbalance in blood sugar levels that are abnormally high because the body can't eet the demands of our body processes. Rodents used as models in medical testing because their vior characteristics closely resemble those of humans, and many symptoms of human conditions can ats. The highlights of this research are drug–drug interactions between diabetic inducer drugs and ministered drugs on fasting blood glucose levels of rats, response of rodent models on induced drugs, pling on rats. The objective is to determine the efficacy of different pharmaceutical drugs to fasting betic induced rats. The methods used were plant collection and extraction for organic drugs while from pharmaceutical industries and hospitals at the location of the scientific analysis. Animals were nd medical institutes approved by the Ethics Committee of Laboratory Animal. Induction and erformed using Metformin, Streptozotocin and Alloxan as drug inducers of diabetic condition. onstructed comprises groupings of animals (treated and untreated) with varying dosages and time r blood sampling were introduced for final analysis. The results obtained were plant materials used rance to glucose level test. Reduction to blood glucose level to certain period but as time passed by, Diabetic Alloxan Monohydrate induced rats once administered with synthetic drugs showed varied ucose level. Hypoglycemic effects prevailed most compared to hyperglycemic effects but both showed f different drugs plays an important role to fasting blood glucose levels of laboratory rats. Standard

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Purifying Inorganic Phosphate using Sawdust Activated Carbon in Solid Phase Extraction for Stable Oxygen Isotope ($\delta^{18}O_{PO4}$) Analysis: A Review on Different Methodological Approach

Sandy May F. Soriano*, Saiym Faustine M. San Jose, Kimberly Neal Nathalie R. Sasis, Karla Jane S. Tawing, Abigail P. Cid-Andres

Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Ma
**Contact Information: sorianosandymay@gmail.com [S.M.Soriano]*

KeyWords
Isotope, Phosphate capture, Sawdust, Solid-Phase Extration, Stable Isotope analysis

ABSTRACT

IJESC

Research Article Volume 8 Issue No.12

A Review on Synthesis, Metal Complexes, Applications of Porphyrin Schiff Bases and its Possibility to be used as a Ligand for Quantitation of Metals

Shan Nicolai A. Villaluna[1], Shiela Marie O. Bueno[2], ShynnelIzza F. Clemente[3], Abigail P. Cid-Andres[4]
Department of Physical Sciences
College of Science Polytechnic University of the Philippines, Anonas St., Sta. Mesa, Manila, 1016 Philippines

Abstract:
There have been increasing interests in developing synthetic routes for the synthesis of compounds as these have become one of the dominants ways in developing the studies in the field of chemistry. This review paper mainly aims to highlight the different procedures conducted from previous and recent studies regarding the synthesis and metal complexation of porphyrin Schiff bases. Some Modifications ware discussed in order to identify their effect on the Characteristic of the Porphyrin. These compounds exhibit various applications on different fields but this paperfocused more on its application for metal quantitation. Porphyrin are known to have strong complexing ability and was successfully complexed with different kinds of metals. Relatively, Schiff Bases was used in many studies about method development for metal quantitation. Developing studies about porphyrin Schiff base complexes could solve some environmental or health issues regarding heavy metal management.

Keywords: Porphyrins, Schiff bases, Porphyrin Synthesis, Metalloporphyrin, Metal Quantitation

1. Introduction

Many chemical substances do not occur naturally and a wide variety of products we use and consume are made up of synthesized chemicals. The fact that chemical synthesis gives us the ability to make these chemical compounds shows how important and valuable chemical synthesis is. Synthesis comes from the Greek word "syntithenai" which means to "put out of four pyrrole rings associated by methine spans. The carbon on the methine (-CH=) bridge are called meso-position, while the peripheral pyrrolic positions are called as B-positions. Also, porphyrins contain 22 conjugated π electrons but only 18 π electrons are necessary to maintain a closed conjugated aromatic system. The 4 remaining π electrons located in the two B,B'-double bonds are cross conjugated with the aromatic system. Allowing it to be described as an

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 220 (2019) 116837

Contents lists available at ScienceDirect

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journal homepage: www.elsevier.com/locate/saa

Review Article

Trends in fabrication, data gathering, validation, and application of molecular fluorometer and spectrofluorometer

John Adrian A. Pascua *, Anne Jizelle A. Prado, Brad Randel B. Solis, Abigail P. Cid-Andres, Christian Jay B. Cambiador

Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Manila 1016, Philippines

ARTICLE INFO

Article history:
Received 30 September 2018
Received in revised form 8 January 2019
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Available online 21 February 2019

Keywords:
Pesticide residue
Fabrication
Spectrofluorometer
Fluorometer

ABSTRACT

Technological advances have widely improved the field of research as spectroscopic methods are now flexible in analyzing different sample matrix. There have been various methods used in applications of spectrofluorometer, but some were costly, time consuming or complicated for routine analysis, creating barrier for students to understand the basic concepts of fluorescence. This review focuses on the different fluorometer designs and techniques which promote cost efficiency and/or having modifications without compromise in data gathering, and its applications to various scientific fields. The usage of pesticides has a wide range of effects when it comes to the environment and to human health especially when it enters the food chain. The characteristic of having a low-cost, user-friendly and efficient device can occur in different variations as materials and technology are employed to fluorescence detection which primarily contributes to the different applications of the device such as in food safety and security.

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Purifying Inorganic Phosphate using Sawdust Activated Carbon in Solid Phase Extraction for Stable Oxygen Isotope ($\delta^{18}O_{PO4}$) Analysis: A Review on Different Methodological Approach

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Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Ma
**Contact Information: sorianosandymay@gmail.com [S.M.Soriano]*

KeyWords
Isotope, Phosphate capture, Sawdust, Solid-Phase Extration, Stable Isotope analysis

ABSTRACT

IJESC

Research Article Volume 8 Issue No.12

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Trends in fabrication, data gathering, validation, and application of molecular fluorometer and spectrofluorometer

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Contents

2020Efforts to COVID 19 PREVENTION measures

[EXTERNAL] SaniTents Formulation.

2

ABIGAIL ANDRES
Dear Ms. Pagjunasan and Sanitent, Thank you very much. Sincerely,... Wed 08/04/2020 3:52 PM

You forwarded this message on Wed 08/04/2020 3:53 PM

Gabrielle Pagjunasan <gabriellepagjunasan15@gmail.com>
Wed 08/04/2020 3:42 PM
To: Cbesoto@gmail.com

(2) Formulation_Private Entity...
2 MB

Greetings!

Attached herein is the formulation for SaniTents PH. This includes the following:
- FAQs about the disinfectant
- Background Literature about the disinfectant
- Literature on the effectiveness of sanitation tents
- Project Brief
- Instruction Manual written in both Filipino and English

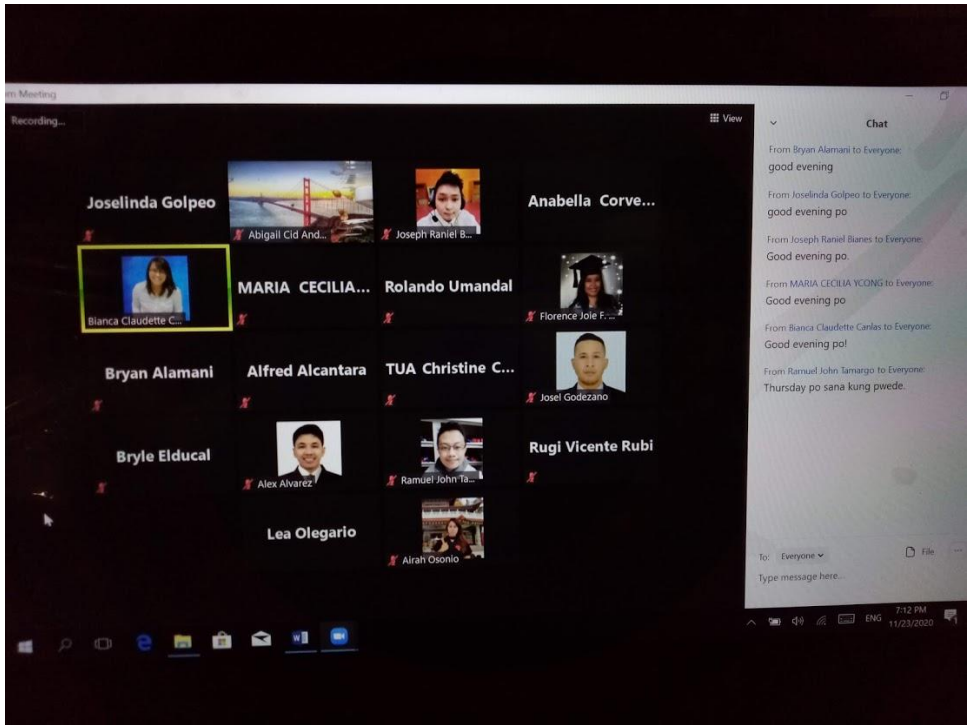
May I please remind you the following guidelines:
1. Exposure time is 10-20 s depending on the misting mechanism. (20s for misting nozzles, 10s for knapsack sprayer).

2020 Consultation meeting with pcieerd, dost ncr, dost central

2020 RESEARCH GRANT APPROVED (ENVIRONMENT)

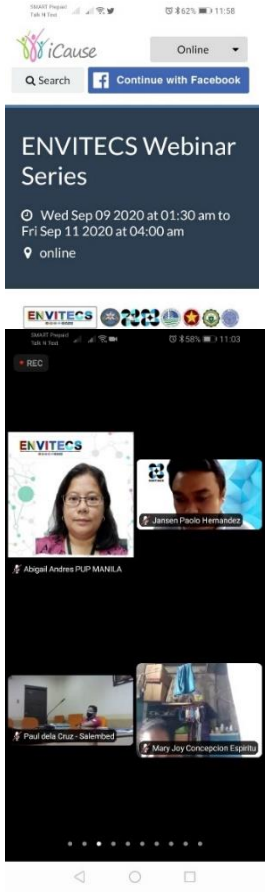
ENVITECS

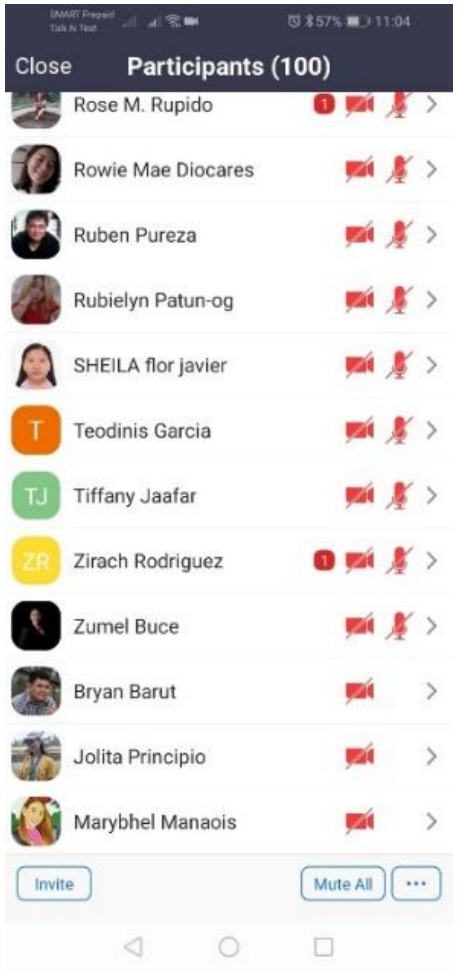
Effective Network for a Viable Institutionalized Technology with Environmental Compliance Standards

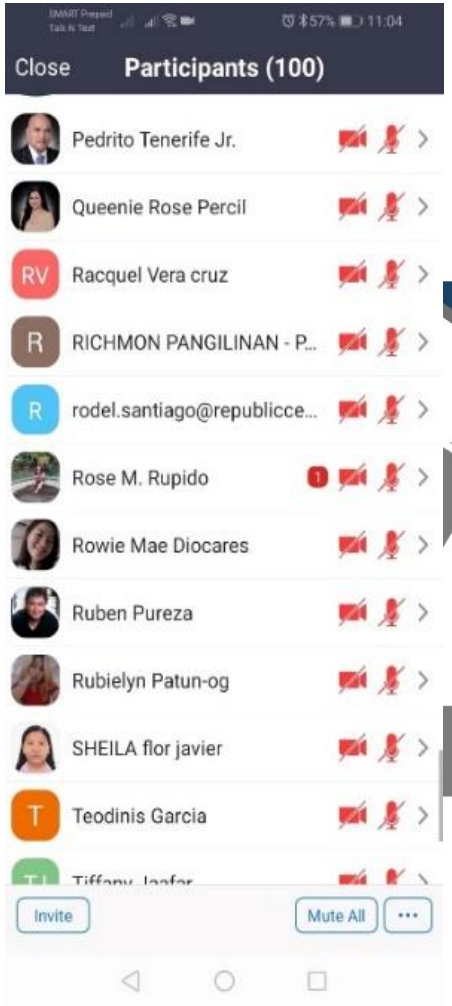


2020 – ORGANIZED 3 DAYS NATIONAL WEBINAR FOR THE SCOPING PROJECT

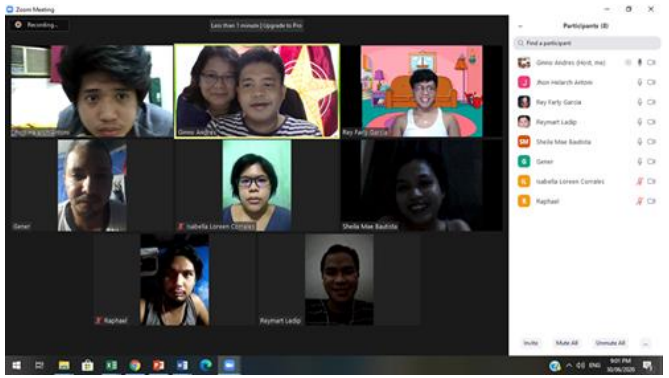
SEPTEMBER 9, 2020
September 11, 2020
ATTENDED ENVITECS WEBINAR SERIES

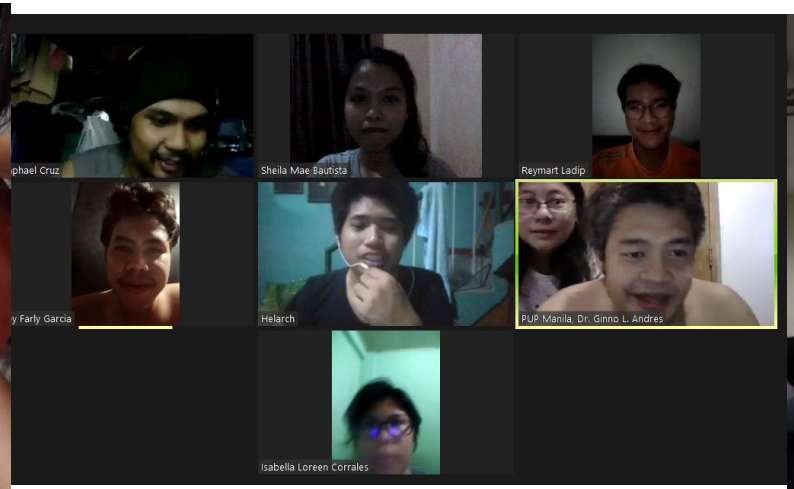






2020 Aluminum air battery project year 1 and 2





2020 Project meeting with DOST

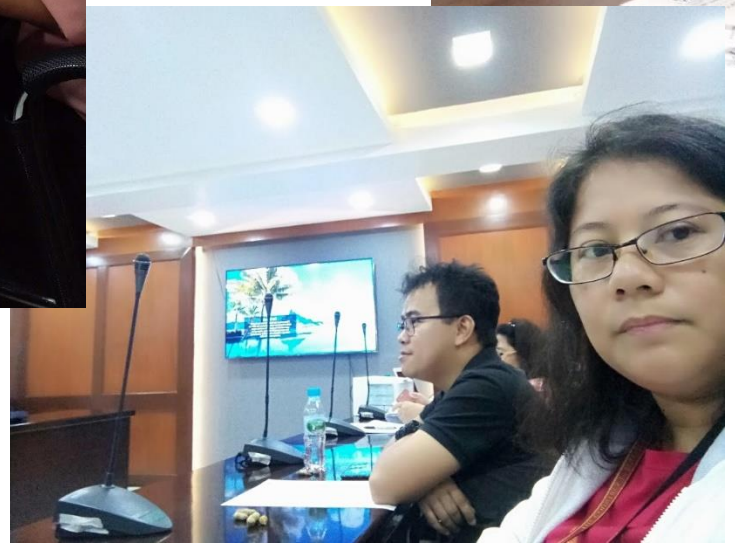
2020 – ZOOM / FB MEETING OF COLLEGE OF SCIENCE

2020 ORGANIZED TRAININGS WITH SIGMA TECH AND MOLAVE TRADING

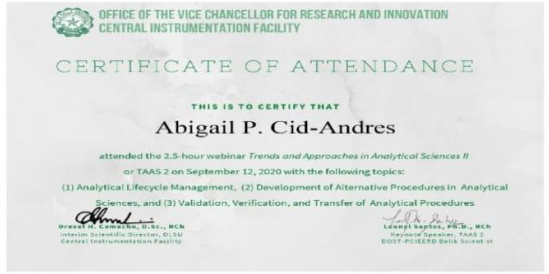
INNOVATION EXHIBITS

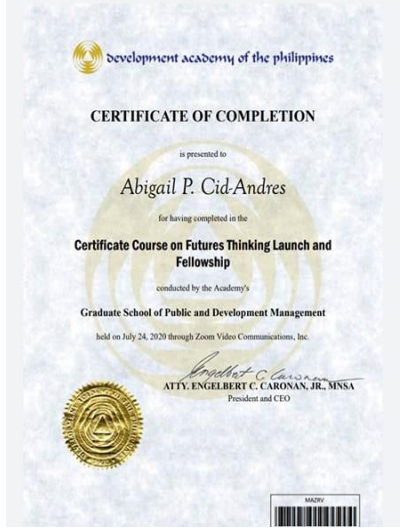
GLOBE COLLABORATION MEETING

2020 BAC MEETINGS, POST QUALIFICATION VISITS

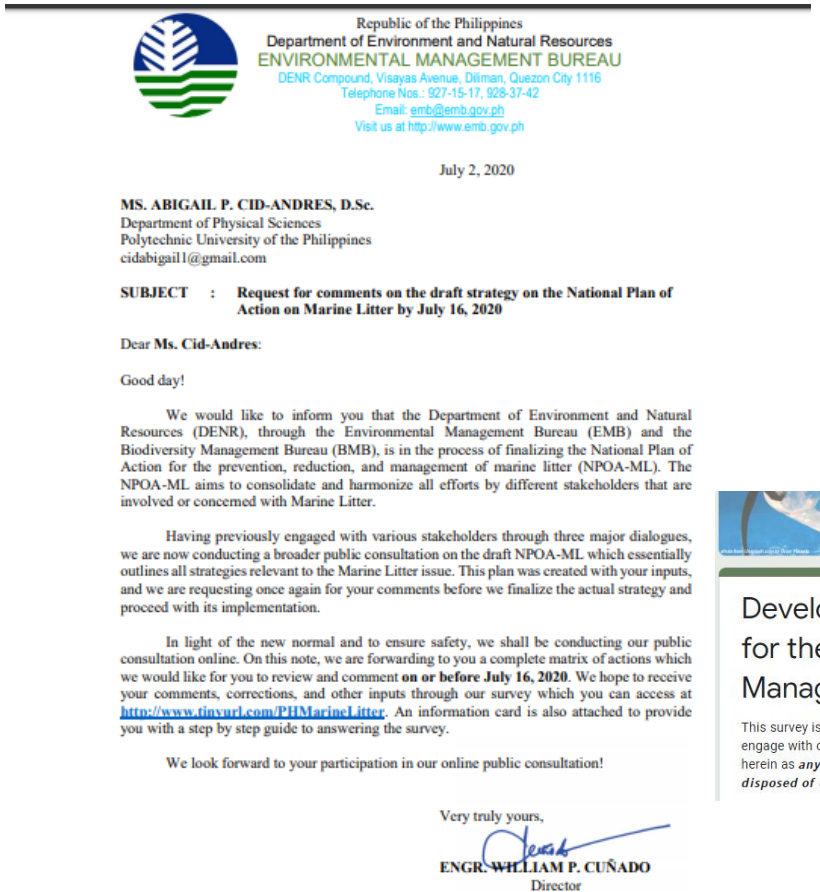


2020 – ATTENDING WEBINAR/TRAINING PROOF CERTIFICATION





CONSULTATION FOR NATIONAL PLAN OF ACTION ON MARINE LITTER



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman, Quezon City 1116
Telephone Nos.: 927-15-17, 928-37-42
Email: emb@emb.gov.ph
Visit us at http://www.emb.gov.ph

July 2, 2020

MS. ABIGAIL P. CID-ANDRES, D.Sc.
Department of Physical Sciences
Polytechnic University of the Philippines
cidabigail1@gmail.com

SUBJECT : Request for comments on the draft strategy on the National Plan of Action on Marine Litter by July 16, 2020

Dear **Ms. Cid-Andres**:

Good day!

We would like to inform you that the Department of Environment and Natural Resources (DENR), through the Environmental Management Bureau (EMB) and the Biodiversity Management Bureau (BMB), is in the process of finalizing the National Plan of Action for the prevention, reduction, and management of marine litter (NPOA-ML). The NPOA-ML aims to consolidate and harmonize all efforts by different stakeholders that are involved or concerned with Marine Litter.

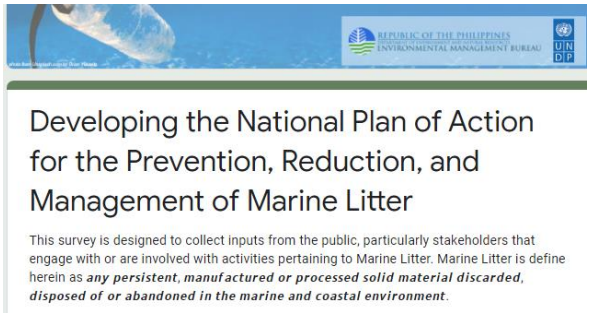
Having previously engaged with various stakeholders through three major dialogues, we are now conducting a broader public consultation on the draft NPOA-ML which essentially outlines all strategies relevant to the Marine Litter issue. This plan was created with your inputs, and we are requesting once again for your comments before we finalize the actual strategy and proceed with its implementation.

In light of the new normal and to ensure safety, we shall be conducting our public consultation online. On this note, we are forwarding to you a complete matrix of actions which we would like for you to review and comment **on or before July 16, 2020**. We hope to receive your comments, corrections, and other inputs through our survey which you can access at http://www.tinyurl.com/PHMarineLitter. An information card is also attached to provide you with a step by step guide to answering the survey.

We look forward to your participation in our online public consultation!

Very truly yours,

ENGR. WILLIAM P. CUÑADO
Director



REPUBLIC OF THE PHILIPPINES
ENVIRONMENTAL MANAGEMENT BUREAU

Developing the National Plan of Action for the Prevention, Reduction, and Management of Marine Litter

This survey is designed to collect inputs from the public, particularly stakeholders that engage with or are involved with activities pertaining to Marine Litter. Marine Litter is define herein as *any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment*.

ACTIVE PARTICIPATION TO SCIENTIFIC MEETINGS

University of the Philippines Diliman
Institute of Civil Engineering
Integrated Waste Analysis, Survey, and Technological Options (Project IWASTO)

CERTIFICATE OF PARTICIPATION

is hereby granted to

Abigail P. Cid-Andres

for actively participating in the **IWASTO Natin Webinar Series Episode 1: Management of Biodegradable Wastes** held on **08 July 2020**, 1:00-2:30 PM.

MARIA ANTONIA N. TANCHULING
Project Leader, Project IWASTO
Professor and Director, UP ICE

CERTIFICATE OF ATTENDANCE

is hereby granted to

Abigail P. Cid-Andres

for his/her attendance to the

42nd Annual Scientific Meeting
***Science and Technology for Society:* Solutions to Long-Standing Concerns**

held on 10 July 2020, 10:00 AM - 3:00 PM

YGDBYU-CE000010

BRITISH COUNCIL
Newton Agham

Certificate of Attendance

This is to certify that

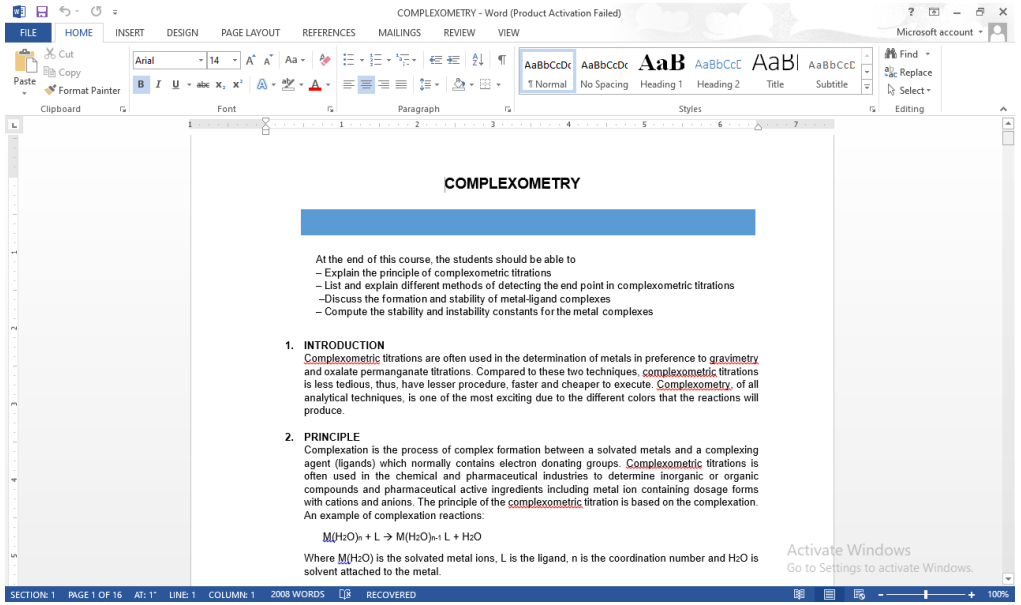
attended the Webinar on assessing the value of research with a UK partner, post Covid-19 on 11 June 2020 delivered by Dr Jopeth Ramis, Dr Michael Angelo Promentilla and Dr Devendra Saroj, and organised by the British Council in the Philippines.

LOTUS POSTRADO
Head of Education

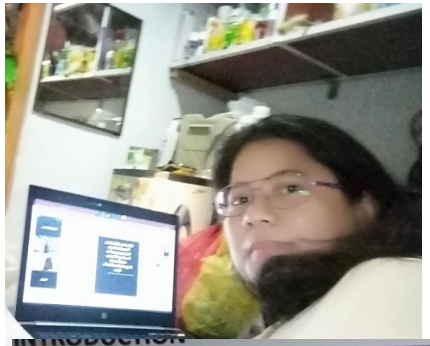
11 June 2020
Philippines

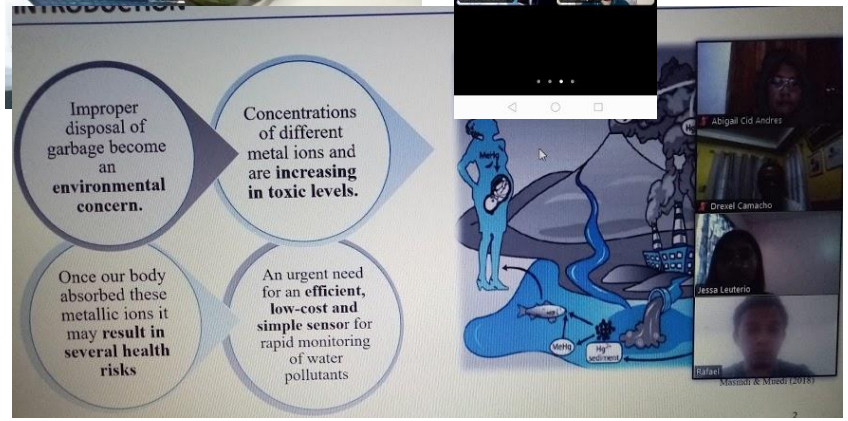
INSTRUCTIONAL MANUALS WRITING ANALYTICAL CHEMISTRY AND INORGANIC CHEMISTRY

ACTIVE PARTICIPATION AND REGULAR MEMBERSHIP TO NRCP



DLSU MASTER THESIS EXAMINER





PEER REVIEWER

Reviewer Recommendation and Comments for Manuscript Number ECLE-D-19-00173

Original Submission
Abigail Cid-Andres, PhD Reviewer 17

Back | Edit Review | Print | Submit Review to Editorial Office

RECOMMENDATIONS FOR GRADUATE STUDIES, SCHOLARSHIPS AND JOBS


De La Salle University
Office of Admissions and Scholarships

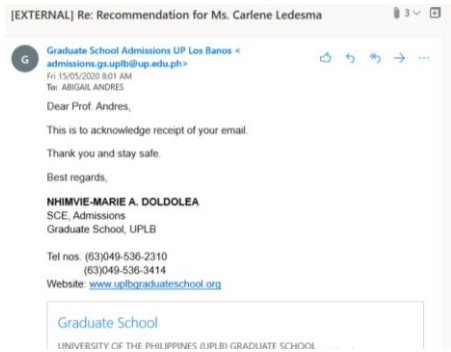
LETTER OF RECOMMENDATION

TO THE APPLICANT:

(1) Please fill out this form online. TYPE your name, address, desired graduate program and major and the name of the teacher, employer or supervisor to whom you are submitting this. Provide each individual making this recommendation with an envelope addressed to:

THE DIRECTOR OF THE OFFICE OF ADMISSIONS AND SCHOLARSHIPS
De La Salle University
2401 Taft Avenue, Manila

(2) Please submit the sealed and signed envelope together with the other application requirements.


[EXTERNAL] Re: Recommendation for Ms. Carlene Ledesma

Graduate School Admissions UP Los Banos <admissions.gs.uplb@up.edu.ph>
Fri 15/05/2020 8:01 AM
To: ABIGAIL ANDRES

Dear Prof. Andres,

This is to acknowledge receipt of your email.

Thank you and stay safe.

Best regards,

NHIMVIE-MARIE A. DOLDOLEA
SCE, Admissions
Graduate School, UPLB

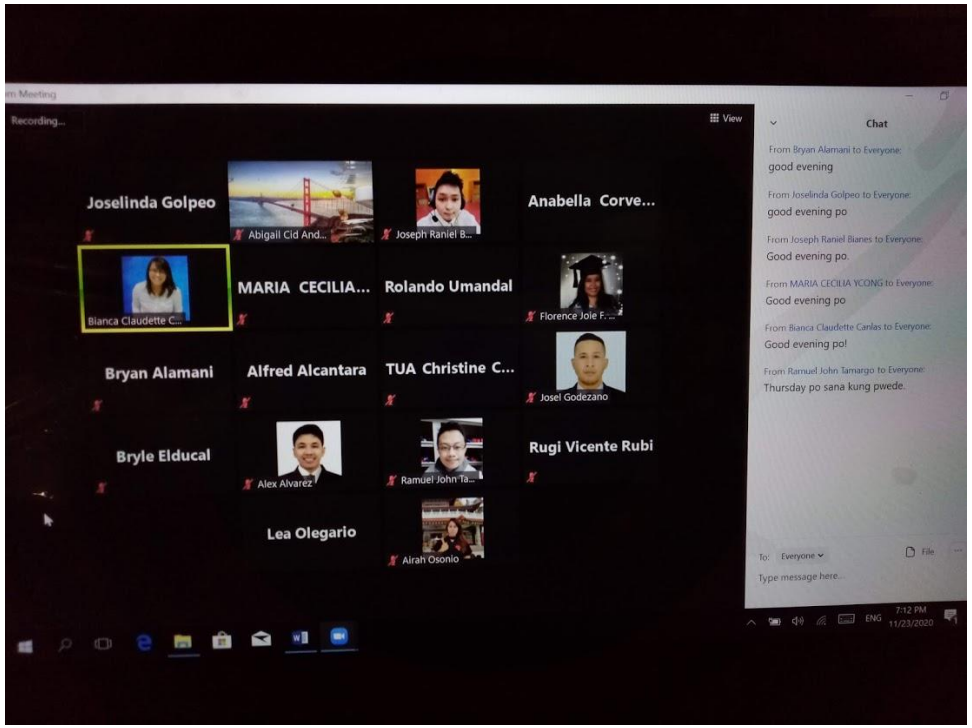
Tel nos. (63)049-536-2310
(63)049-536-3414
Website: www.uplbgraduateschool.org

Graduate School
UNIVERSITY OF THE PHILIPPINES (UPLB) GRADUATE SCHOOL

2020 RESEARCH GRANT APPROVED (ENVIRONMENT)

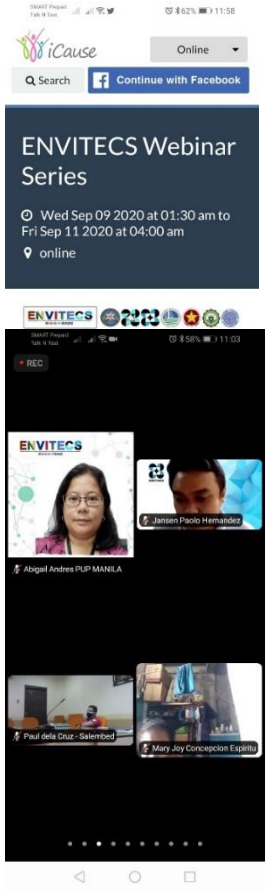
ENVITECS

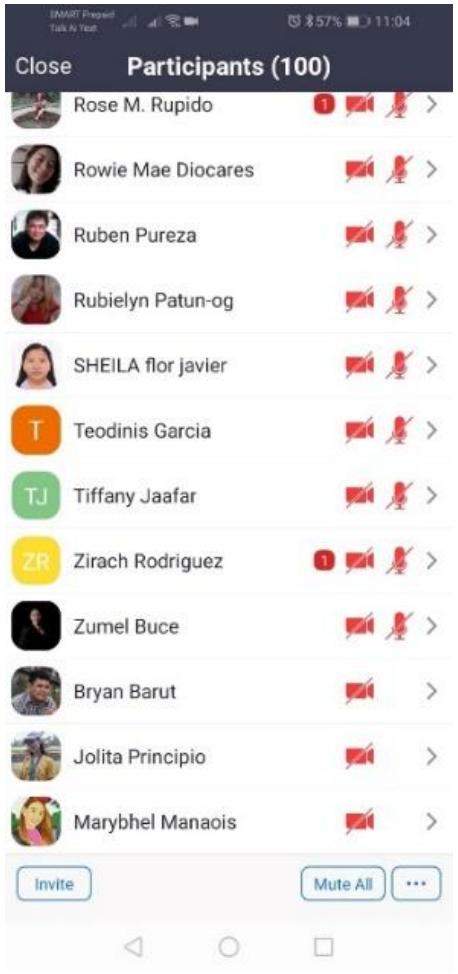
Effective Network for a Viable Institutionalized Technology with Environmental Compliance Standards

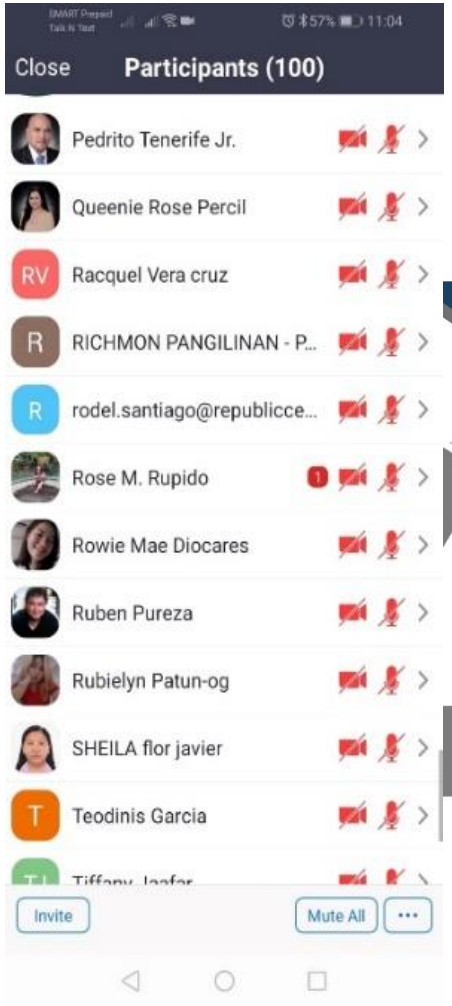


2020 – ORGANIZED 3 DAYS NATIONAL WEBINAR FOR THE SCOPING PROJECT

SEPTEMBER 9, 2020
September 11, 2020
ATTENDED ENVITECS WEBINAR SERIES







EQUIPMENT DELIVERED

- 3D PRINTER
- PH METER WITH CHLORIDE ION ELECTRODE
- POTENTIOSTAT/GALVANOSTAT
- LAB WATER PURIFIER

2020-2021 3 PUBLISHED PAPERS

ENVIRONMENTAL Science & Technology

Article

Cite This: Environ. Sci. Technol. XXXX, XXX, XXX−XXX

pubs.acs.org/est

Identification of Phosphorus Sources in a Watershed Using a Phosphate Oxygen Isoscape Approach

Takuya Ishida,*[,†] Yoshitoshi Uehara,[†] Tomoya Iwata,[‡] Abigail P. Cid-Andres,[§] Satoshi Asano,[∥] Tohru Ikeya,[†] Ken'ichi Osaka,[⊥] Jun'ichiro Ide,[#] Osbert Leo A. Privaldos,[▽] Irisse Bianca B. De Jesus,[○] Elfritzson M. Peralta,[○] Ellis Mika C. Triño,[○] Chia-Ying Ko,[◆] Adina Paytan,[¶] Ichiro Tayasu,[†] and Noboru Okuda[†]

[†]Research Institute for Humanity and Nature, 457-4, Motoyama, Kamigamo, Kyoto, 603-8047, Japan

[‡]Faculty of Life and Environmental Science, University of Yamanashi, 4-4-37, Takeda, Kofu, Yamanashi 400-8510, Japan

[§]Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Anonas Street. Sta. Mesa, Manila 1016, Philippines

[∥]Lake Biwa Environment Research Institute, 5-34, Yanagasaki, Ohtsu, Shiga 520-0022, Japan

[⊥]School of Environmental Sciences, The University of Shiga Prefecture, 2500, Hasaka, Hikone, Shiga 522-8533, Japan

[#]Institute of Decision Science for a Sustainable Society, Kyushu University, 394, Tsubakuro, Sasaguri, Fukuoka 811-2415, Japan

[▽]Laguna Lake Development Authority, National Ecology Center, East Avenue, Diliman, Quezon City, 1101, Philippines

[○]The Graduate School, University of Santo Tomas, España Boulevard, Manila 1015, Philippines

[◆]Institute of Fisheries Science & Department of Life Science, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei 10617, Taiwan

[¶]Institute of Marine Sciences, University of California Santa Cruz, 1156 High Street, Santa Cruz, California 95064, United States

Supporting Information

ABSTRACT: Identifying nonpoint phosphorus (P) sources in a watershed is essential for addressing cultural eutrophication and for proposing best-management solutions. The oxygen isotope ratio of phosphate ($\delta^{18}O_{p}$) can shed light on P sources and P

RJC

RASĀYAN J. Chem.
Vol. 13 | No. 1 |249 - 254| January - March | 2020
ISSN: 0974-1496 | e-ISSN: 0976-0083 | CODEN: RJCABP
http://www.rasayanjournal.com
http://www.rasayanjournal.co.in

SILICA EXTRACTION FROM BEACH SAND FOR DYES REMOVAL: ISOTHERMS, KINETICS AND THERMODYNAMICS

M. Lutfi Firdaus[1,*], Fitri E. Madina[1], Sasti Yulia F.[1], Rina Elvia[1], Soraya N. Ishmah[2], Diana R. Eddy[2], Abigail P. Cid-Andres[3]

[1]Graduate School of Science Education, University of Bengkulu, Bengkulu 38371, Indonesia
[2]Department of Chemistry, Universitas Padjadjaran, Jatinangor 45363, Indonesia
[3]Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Manila 1016, Philippines
*E-mail: lutfi@unib.ac.id

Mathematics and Science Education International Seminar (MASEIS) 2019 IOP Publishing
Journal of Physics: Conference Series **1731** (2021) 012064 doi:10.1088/1742-6596/1731/1/012064

Metal incorporated Philippine Abaca fiber (*Manila hemp*) as a potential novel filter for water disinfection

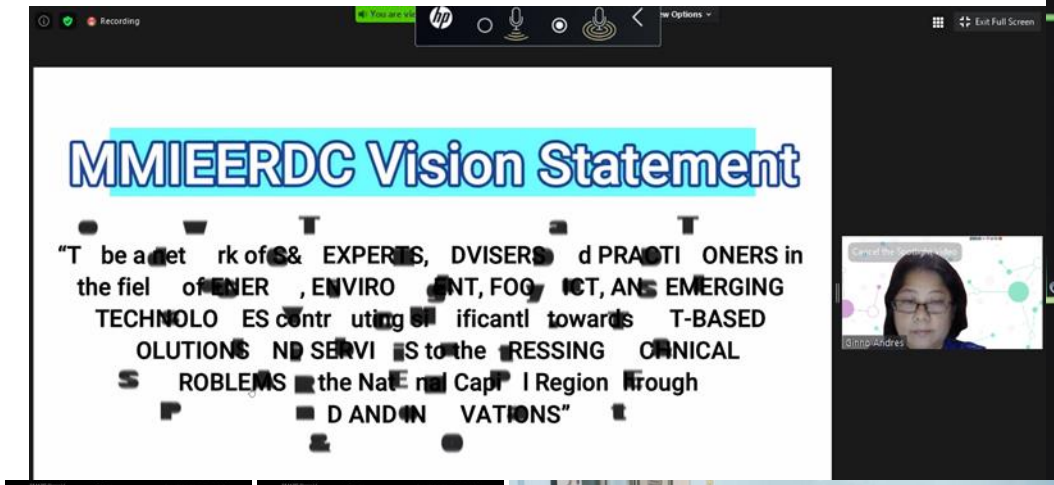
K A Garcia, K-A G Peroja, NA L Tuberon, CJ B Cambiador and A P Cid-Andres*

Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Anonas St., Sta. Mesa, Manila 1016 Philippines

*acandres@pup.edu.ph

Abstract. The contamination of water sources by pathogenic bacteria poses a threat both in the environment and in human health. The incorporation of metal nanoparticles in polymer matrix which is abundantly available in a country can be improved to enhance its antimicrobial

2020-2021 SCOPING PROJECT ACTIVITIES



2020-2021 NEW RESEARCHERS INVOLVEMENT SCOPING

- Initial
  - Jim Cruz, Mark Catapang, Elizabeth Bisa, Marie Dale Peralis
- Full term
  - Engr Joseph Bianes, Engr Joselinda Golpeo, Engr Mark Manlapaz
  - Other veteran researchers from TUA, Adamson, UP, DENR
  - Other PUP researchers

IWEST


Polytechnic University of the Philippines
PRESENTS
IWEST 2021
"International Webinar on Engineering, Science and Technology"
"International Collaboration in Engineering, Science and Technology for a Resilient New Normal".
ONLINE EVENT DATE:
FEBRUARY 22 - 28, 2021 | 9:00 AM - 5:00 PM | Via ZOOM
CONTACT US :
pchls@pup.edu.ph
Scan or click the link to Register :
https://forms.gle/YchaMh2mwbAszK5g8

2021 PROPOSALS SUBMITTED

- Kyoto University
- NICER
- Small R&D

2021 RESEARCH GRANT

- Kyoto University 700,000 yen research collaboration grant
- DOST NICER Proposal for a R&D Center for Sustainable Industries approved by Governing Council and for presentation for Execom next week worth Php 52M

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KEYNOTE SPEAKER
Prof. Davron Mavlonov
Professor of Physics
Tirin Polytechnic University in Tashkent
Tashkent Uzbekistan
Prof. Dr. Hans-Dieter Barke
WWU Münster Institut für Didaktik der Chemie
Germany
Dr. Abigail P. Cid-Andres
Polytechnic University of the Philippines
INVITED SPEAKER
Prof. Hadi Susanto
Mathematics Department
Khalifa University
Abu Dhabi UAE
Prof. Dr. Aceng Ruyani
Biology Education Department
University of Bengkulu
Prof. Anna Permana Sari
International Program
On Science Education
UPI Bandung
Dr. Yosie Andriani HS
Institute of Marine Biotechnology (IMB)
University Malaysia Terengganu (UMT)
IMPORTANT DATES
OCTOBER 7, 2021
Announcement of Accepted Abstract
NOVEMBER 1, 2021
Announcement of Accepted Full Paper
NOVEMBER 13, 2021
Conference
OCTOBER 1, 2021
Deadline Abstract
OCTOBER 21, 2021
Deadline Fullpaper
NOVEMBER 7,2021
Deadline for Payment
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+62 852-6855-0030 (Aprina Defianti, M. Pd.)
http://maseis.fkip.unib.ac.id/

DELIVERABLES

Dr APC Andres

BSP Awardee

PUP researchers co authored publication

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy
Volume 220, 5 September 2019, 116837

Review Article

Trends in fabrication, data gathering, validation, and application of molecular fluorometer and spectrofluorometer

John Adrian A. Pascua, Anne Jizelle A. Prado, Brad Randel B. Solis, Abigail P. Cid-Andres, Christian Jay B. Cambiador

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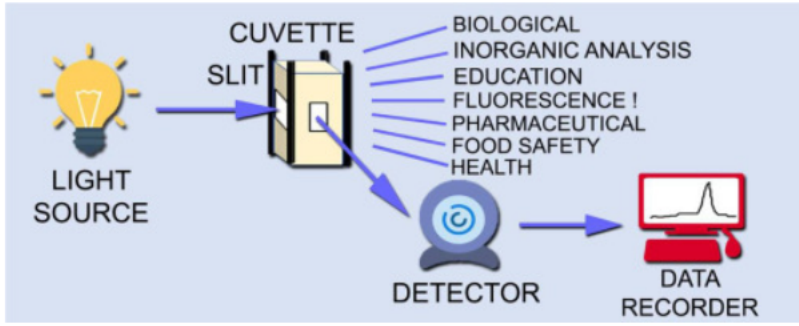
https://doi.org/10.1016/j.saa.2019.02.061 Get rights and content

Technological advances have widely improved the field of research as spectroscopic methods are now flexible in analyzing different sample matrix. There have been various methods used in applications of spectrofluorometer, but some were costly, time consuming or complicated for routine analysis, creating barrier for students to understand the basic concepts of fluorescence. This review focuses on the different fluorometer designs and techniques which promote cost efficiency and/or having modifications without compromise in data gathering, and its applications to various scientific fields. The usage of pesticides has a wide range of effects when it comes to the environment and to human health especially when it enters the food chain. The characteristic of having a low-cost, user-friendly and efficient device can occur in different variations as materials and technology are employed to fluorescence detection which primarily contributes to the different applications of the device such as in food safety and security.

Graphical abstract



Research on solid phase extraction

DEVELOPMENT OF SOLID PHASE EXTRACTION RESIN USING SAWDUST FOR PHOSPHATE CAPTURE IN LIMNOLOGICAL WATER

San Jose, Saiym Faustine M.
Sasis, Kimberly Neal Nathalie R.
Soriano, Sandy May F.
Tawing, Karla Jane S.

GSJ: Volume 6, Issue 12, December 2018
ISSN 2320-9186

Global Scientific JOURNALS

GSJ: Volume 6, Issue 12, December 2018, Online: ISSN 2320-9186

www.globalscientificjournal.com

Purifying Inorganic Phosphate using Sawdust Activated Carbon in Solid Phase Extraction for Stable Oxygen Isotope ($\delta^{18}O_{PO4}$) Analysis: A Review on Different Methodological Approach

Sandy May F. Soriano*, Saiym Faustine M. San Jose, Kimberly Neal Nathalie R. Sasis, Karla Jane S. Tawing, Abigail P. Cid-Andres

Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Manila, Philippines
**Contact Information: sorianosandymay@gmail.com [S.M.Soriano]*

KeyWords
Isotope, Phosphate capture, Sawdust, Solid-Phase Extration, Stable Isotope analysis

ABSTRACT

Phosphate pollution in the ecosystem particularly in different bodies of water may lead to critical degree of contamination and potential ecological risks. As an approach to this problem, the role of solid phase extraction in purifying inorganic phosphate for stable isotope analysis is expected to have a significant outcome. In this review, analysis of isotopic composition of oxygen in phosphate ($\delta^{18}O_{PO4}$) is said to be a prominent research tool for examining phosphate in water and soil, however, this approach requires purified phosphate. There are several techniques in purifying phosphate, and one of the leading method is solid phase extraction that showed high efficiency percentage in purification of target analytes in many studies. Potential use of sawdust as an effective sorbent in solid phase extraction will be discussed in this paper. Moreover, challenges that are usually encountered in the analysis of $\delta^{18}O_{PO4}$ and its environmental applications will be tackled as well.

Research on solid phase extraction







GSJ: Volume 7, Issue 1, January 2019
ISSN 2320-9186

Global Scientific JOURNALS

GSJ: Volume 7, Issue 1, January 2019, Online: ISSN 2320-9186
www.globalscientificjournal.com

The Potential of EDTA – Modified Rice Husk Ash as Solid Phase Extraction Resin in Seawater

Nhicole Francisco ,Bernadette Hugo and, Jazzelle San Jose

Dr. Abigail Cid-Andres

Department of Physical Sciences, College of Science,

Polytechnic University of the Philippines, Sta. Mesa, Manila, Philippines

2018

Abstract

Solid Phase Extraction (SPE) is one of the methods used in extraction of elements and metals with the aid of preconcentration process. The development of sorbents and their application in preconcentration is a subject of great importance in the environment. This review summarizes the use of solid phase extraction in developing resin for the extraction of trace elements in seawater. On the right hand, Rice Husk Ash (RHA) is a cost-effective agricultural material that has the great properties and capability to be a sorbent for tracing elements. The important properties and components of the RHA will be further specify. This journal review will provide general information regarding solid phase extraction, rice husk ash (RHA), tracing elements and resin.

Keywords: solid phase extraction, trace elements, rice husk ash, resin

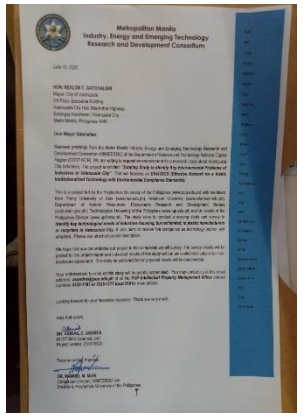

Nhicole Jhosel A. Francisco

Bernadette S. Hugo

Jazzelle A. San Jose

EXTRACTION OF ZINCMETAL IN SYNTHETIC SEAWATER USING EDTA- MODIFIED RICE HUSK ASH (RHA) SOLID PHASE EXTRACTION RESIN

Establishment of research laboratory focusing in environmental health

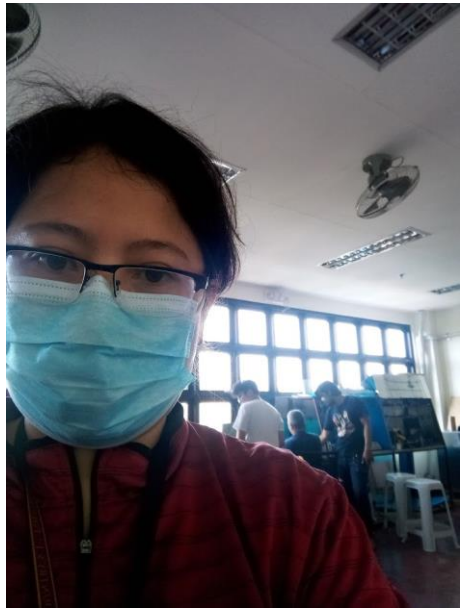


Lead scoping project on environmental technology

research plan

meeting with stakeholders

Establishment of research laboratory



Co lead renewable energy laboratory

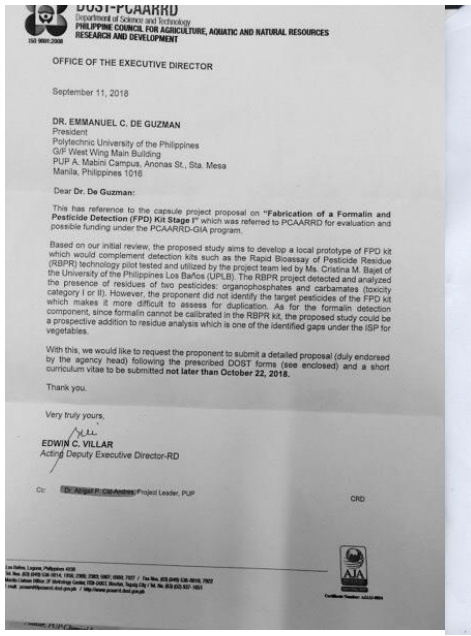
Establishment of research laboratory

2019

2020

2021

Yearly submission of proposals to DOST



DOST-PCAARRD
Department of Science and Technology
PHILIPPINE COUNCIL FOR AGRICULTURE, AQUATIC AND NATURAL RESOURCES RESEARCH AND DEVELOPMENT

OFFICE OF THE EXECUTIVE DIRECTOR

September 11, 2018

DR. EMMANUEL C. DE GUZMAN
President
Polytechnic University of the Philippines
G/F West Wing Main Building
PUP A. Mabini Campus, Anonas St., Sta. Mesa
Manila, Philippines 1016

Dear Dr. De Guzman:

This has reference to the capsule project proposal on **"Fabrication of a Formalin and Pesticide Detection (FPD) Kit Stage I"** which was referred to PCAARRD for evaluation and possible funding under the PCAARRD-GIA program.

Based on our initial review, the proposed study aims to develop a local prototype of FPD kit which would complement detection kits such as the Rapid Bioassay of Pesticide Residue (RBPR) technology pilot tested and utilized by the project team led by Ms. Cristina M. Bajet of the University of the Philippines Los Baños (UPLB). The RBPR project detected and analyzed the presence of residues of two pesticides: organophosphates and carbamates (toxicity category I or II). However, the proponent did not identify the target pesticides of the FPD kit which makes it more difficult to assess for duplication. As for the formalin detection component, since formalin cannot be calibrated in the RBPR kit, the proposed study could be a prospective addition to residue analysis which is one of the identified gaps under the ISP for vegetables.

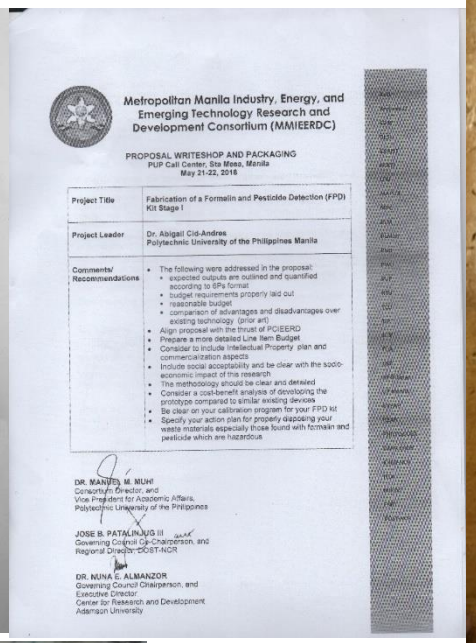
With this, we would like to request the proponent to submit a detailed proposal (duly endorsed by the agency head) following the prescribed DOST forms (see enclosed) and a short curriculum vitae to be submitted **not later than October 22, 2018.**

Thank you.

Very truly yours,

EDWIN C. VILLAR
Acting Deputy Executive Director-RD

Cc: Dr. Abigail P. Cid-Andres, Project Leader, PUP — CRD



Metropolitan Manila Industry, Energy, and Emerging Technology Research and Development Consortium (MMIEERDC)

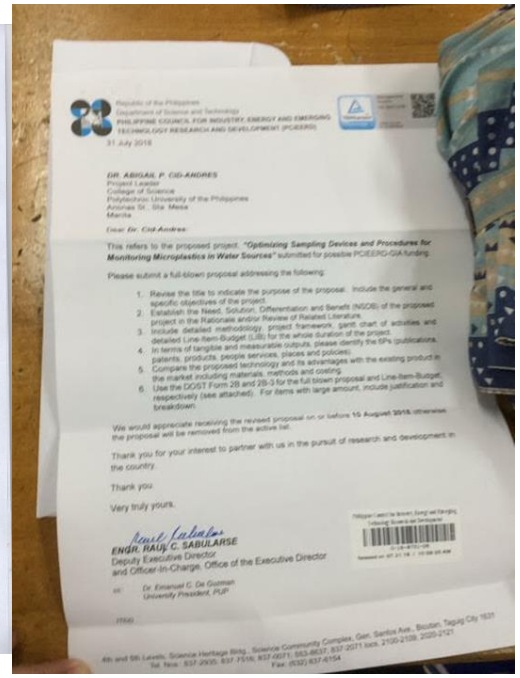
PROPOSAL WRITESHOP AND PACKAGING
PUP Call Center, Sta Mesa, Manila
May 21-22, 2018

Project Title	Fabrication of a Formalin and Pesticide Detection (FPD) Kit Stage I
Project Leader	Dr. Abigail Cid-Andres Polytechnic University of the Philippines Manila
Comments/ Recommendations	• The following were addressed in the proposal: • expected outputs are outlined and quantified according to IDPs format • budget requirements properly laid out • reasonable budget • comparison of advantages and disadvantages over existing technology (prior art) • Align proposal with the thrust of PCIEERD • Prepare a more detailed Line Item Budget • Consider to include Intellectual Property plan and commercialization aspects • Include social acceptability and be clear with the socio-economic impact of this research • The methodology should be clear and detailed • Consider a cost-benefit analysis of developing the prototype compared to similar existing devices • Be clear on your calibration program for your FPD kit • Specify your action plan for properly disposing your waste materials especially those found with formalin and pesticide which are hazardous

DR. MANUEL M. MUHI
Consortium Director, and
Vice President for Academic Affairs,
Polytechnic University of the Philippines

JOSE B. PATALINJUG III
Governing Council Co-Chairperson, and
Regional Director, DOST-NCR

DR. NUNA E. ALMANZOR
Governing Council Chairperson, and
Executive Director
Center for Research and Development
Adamson University



Republic of the Philippines
Department of Science and Technology
PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)

31 July 2018

DR. ABIGAIL P. CID-ANDRES
Project Leader
College of Science
Polytechnic University of the Philippines
Anonas St., Sta. Mesa
Manila

Dear Dr. Cid-Andres:

This refers to the proposed project, **"Optimizing Sampling Devices and Procedures for Monitoring Microplastics in Water Sources"** submitted for possible PCIEERD-GIA funding.

Please submit a full-blown proposal addressing the following:

1. Revise the title to indicate the purpose of the proposal. Include the general and specific objectives of the project.
2. Establish the Need, Solution, Differentiation and Benefit (NSDB) of the proposed project in the Rationale and/or Review of Related Literature.
3. Include detailed methodology, project framework, gantt chart of activities and detailed Line-Item-Budget (LIB) for the whole duration of the project.
4. In terms of tangible and measurable outputs, please identify the IDPs (publications, patents, products, people services, places and policies).
5. Compare the proposed technology and its advantages with the existing product in the market including materials, methods and costing.
6. Use the DOST Form 2B and 2B-3 for the full blown proposal and Line-Item-Budget, respectively (see attached). For items with large amount, include justification and breakdown.

We would appreciate receiving the revised proposal on or before 10 August 2018, otherwise the proposal will be removed from the active list.

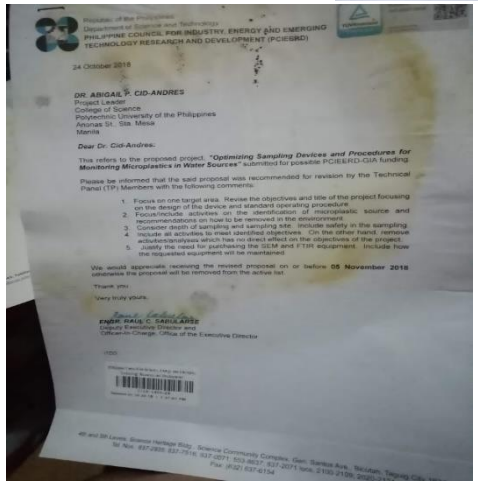
Thank you for your interest to partner with us in the pursuit of research and development in the country.

Thank you.

Very truly yours,

ENGR. RAUL C. SABULARSE
Deputy Executive Director
and Officer-In-Charge, Office of the Executive Director

cc: Dr. Emanuel C. De Guzman
University President, PUP



Republic of the Philippines
Department of Science and Technology
PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)

24 October 2018

DR. ABIGAIL P. CID-ANDRES
Project Leader
College of Science
Polytechnic University of the Philippines
Anonas St., Sta. Mesa
Manila

Dear Dr. Cid-Andres:

This refers to the proposed project, **"Optimizing Sampling Devices and Procedures for Monitoring Microplastics in Water Sources"** submitted for possible PCIEERD-GIA funding.

Please be informed that the said proposal was recommended for revision by the Technical Panel (TP) Members with the following comments:

1. Focus on one target area. Revise the objectives and title of the project focusing on the design of the device and standard operating procedure.
2. Focus/include activities on the identification of microplastic source and recommendations on how to be removed in the environment.
3. Consider depth of sampling and sampling site. Include safety in the sampling.
4. Include all activities to meet identified objectives. On the other hand, remove activities/analyses which has no direct effect on the objectives of the project.
5. Justify the need for purchasing the GEM and FTIR equipment. Include how the requested equipment will be maintained.

We would appreciate receiving the revised proposal on or before **05 November 2018** otherwise the proposal will be removed from the active list.

Thank you.

Very truly yours,

ENGR. RAUL C. SABULARSE
Deputy Executive Director and
Officer-In-Charge, Office of the Executive Director

PCAARD
Pesticide kit

UKRI
Microplastics

PCIEERD
Proposed NICER on Industrial Waste Management
Microplastics
Al air

PCHRD
Iron salt

CHED NEWTON FUND
Safe road

CHED GIA

ASEAN DND
Dengue kit

Project Proposal 1
Writing, revision, re-submissions
Scoping Project with MMIEERDC

Marybhel, me 4	Inbox	PUP Scoping - Pre-Implementation Guidelines - 02 PM Marybhel Manaois < marybhel.manaois@pcieerd....	May 6
Marybhel Manaois	Inbox	Marybhel Manaois added you to the Researchers group - Office 365 Work Brilliantly Together [cid:Guest...	May 5
Marybhel Manaois	Inbox	2020 Call for R&D Proposal - ENGR. MARYBHEL D. MANAOIS Science Research Specialist Environment ...	May 5
Marybhel Manaois	Inbox	DOST and the Ministry of Science and Technology (MOST) of the People's Republic of China - Call for Pr...	May 4
Marybhel, Patria 2	Inbox	Call for Proposals - Environment Sector Priority Programs for 2021-2022 - 58 PM Marybhel Manaois < m...	Apr 22
Maryb. .. Laarni, me 11	Inbox	PUP Scoping Project - GC Confirmation - Engr. Marybhel, 000490150 PUP TIN# Thank you. Sincerely, Abi...	Apr 20
me .. Marybhel 62	Inbox	Scoping and Survey Proposal - ENGR. MARYBHEL D. MANAOIS Science Research Specialist Environmen...	Apr 3
Maryb., Elean., me 6	Inbox	Re: LIB scoping 02112020.xlsx - Engr. Marybhel, Here is a reply from one of the members of the scoping...	Feb 21
Engr. Marybhel Mana.	Inbox	Change in Email Address Re: Fwd: LIB scoping 02112020.xlsx - address: marybhel.manaois@pcieerd.do...	Feb 21
Draft		Endorsement of the PUP President - Dear Maam Marybhel,	
Marybhel Manaois	Inbox	NICER-PUP Disposition - ENGR. MARYBHEL D. MANAOIS Science Research Specialist Environment Sect...	Feb 11

Project Proposal 2
Writing and submission of proposals
Newcastle Univ, Natl Univ Singapore, Reef Check Malaysia, PUP, et al.
UK Singapore Malaysia Philippines

References usually take up ½ page or less if we use 'Nature' number format without title .. by way of eg 3 papers:

1 Häfker, NS et al. Curr. Biol. 27, 2194-2201 (2017). 2 Dillon, ME et al. Nature 467, 704-706 (2010). 3 Søreide, J et al. Global Change Biol. 16, 3154-3163 (2010).

Take home is that like this ½ page of refs is only about 40-50 for the whole proposal.

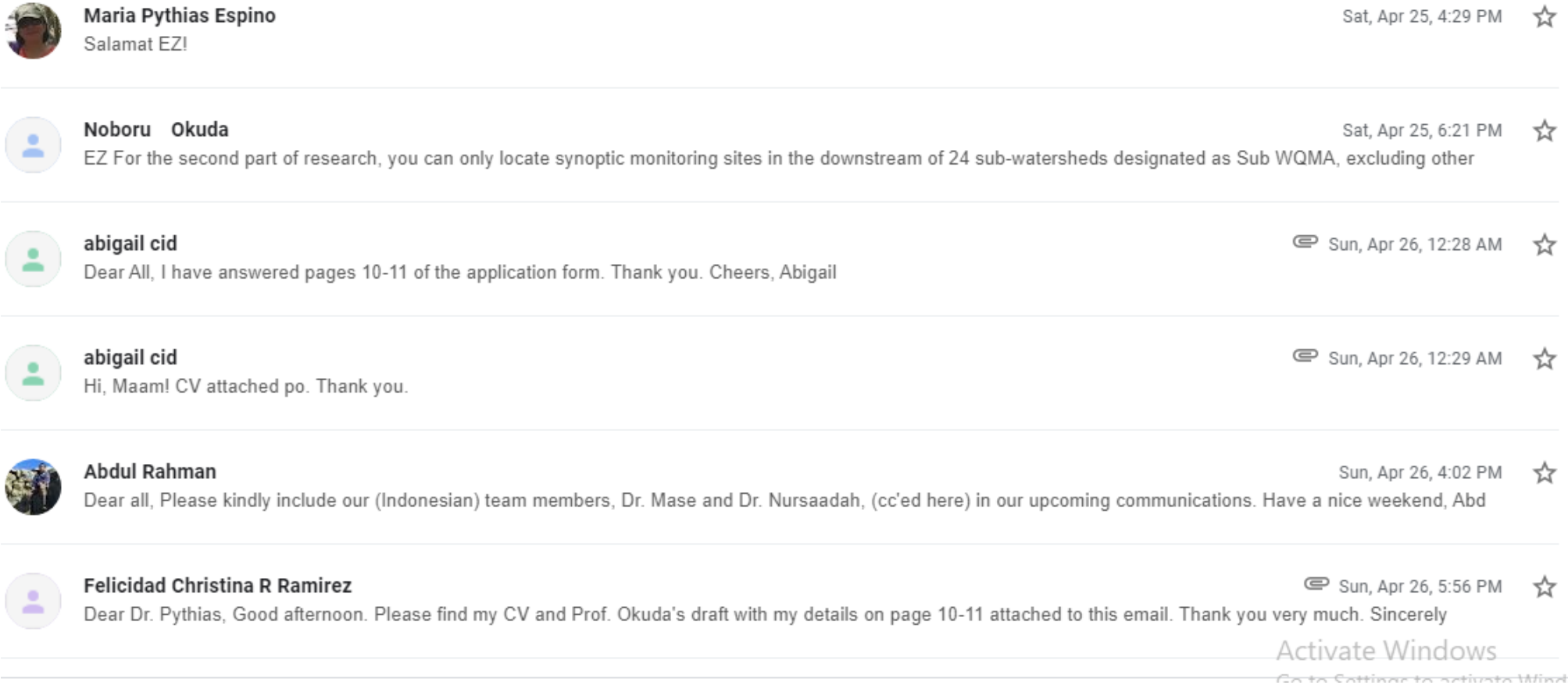
Kim

Gin Yew-Hoong, Karina Mon, May 11, 12:43 PM (5 days ago)
to me

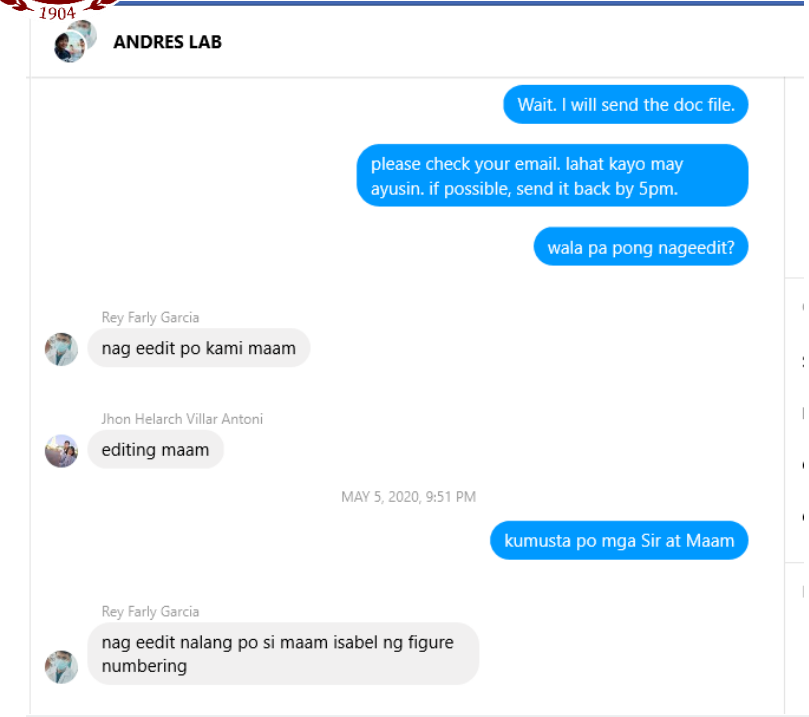
Hi Abigail
Would appreciate if you could send me a short letter to show your intention to commit, and your role in the project as I have to submit the proposal by the end of today (Singapore side).
Thanks so much,
Regards
Karina

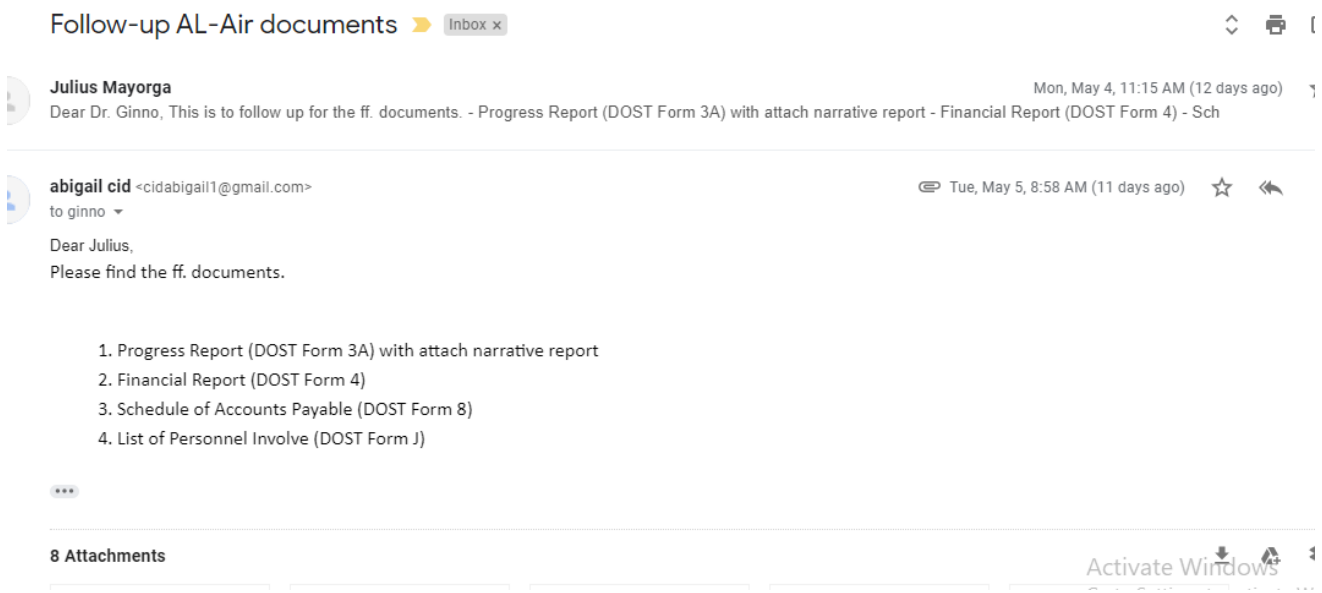
Miguel, me 6	Inbox	Proposal related matters - Dear Miguel, Please see attached, I was not able to reduce it to £43000 but yo... May 14
Jong .. me, Karina 13	Inbox	IMPRESS information needed from everyone, please - FW: IMPRESS information needed from everyone, ... May 11
Migu., James, Kari. 3	Inbox	IMPRESS research proposal draft - KG - MAMM - M 3 - Invitation to edit - Re: IMPRESS research proposal... May 9
Karina, Kheng-Lim 2	Inbox	RE: IMPRESS research milestones/deliverables - RE: IMPRESS research milestones/deliverables ⚠ Exter... May 6
Miguel .. Rob, Anh 7	Inbox	IMPRESS research proposal draft - KG - MAMM - M 2.docx - Re: IMPRESS research proposal draft - KG - ... May 6
Kheng-Lim, Bhavani 2	Inbox	Automatic reply: IMPRESS research proposal draft - KG - MAMM - M 2.docx - Thank-you for your email. I ... May 6
Miguel .. Anh, James 4	Inbox	Minutes - Dear All, I attach a summary of our videoconference last Wednesday, including a few actions. ... Mar 24
Miguel Morales Maqu.	Inbox	Videoconference - SEAS (IMPRESS) Project description: China and Southeast Asia (SEA) contribute over... Mar 18
Miguel .. Karina 26	Inbox	RE: NERC UK-Singapore marine plastics proposal - Seas (IMPRESS)" Regards, Miguel Angel From: Migue... Mar 5

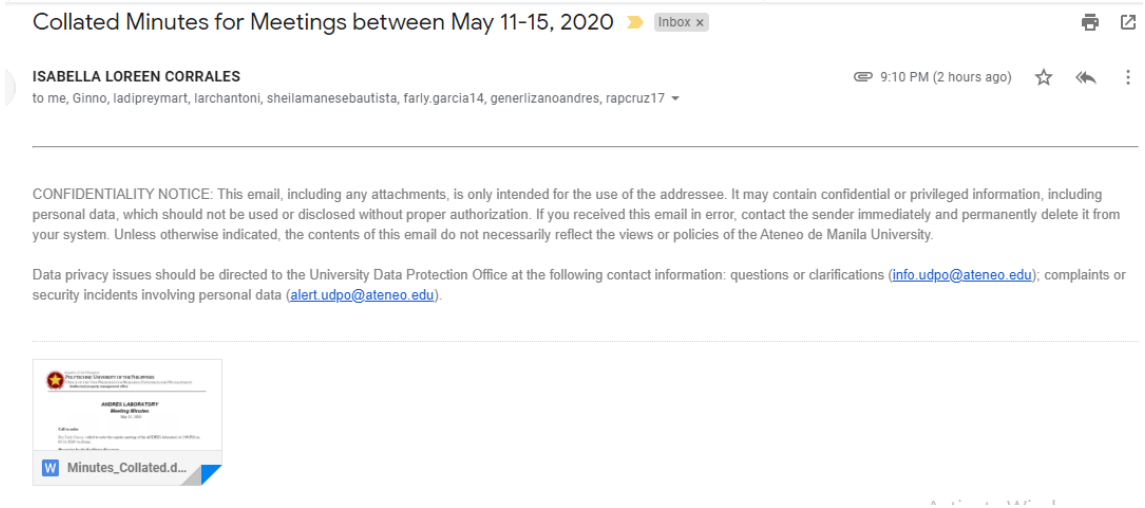
Project Proposal 3
Writing and submission
Kyoto University, University of Bengkulu, University of the Philippines, University of Santo Tomas, PUP
Japan Indonesia Philippines



DR. ABIGAIL C. ANDRES WORK FROM HOME ACCOMPLISHMENTS MAR – MAY 2020







Project Management Novel material for anode and cathode aluminum air reactor

Approval of DOST Governing Council to the Php 1 million Scoping Project for 2 months

PUP Scoping Project - GC Confirmation Inbox ×

Marybhel Manaois Thu, Apr 16, 3:34 PM

to me, ginnoandres@gmail.com, Glenda, MMIEERDC, manuel_muhi@yahoo.com, Ruel, s4c.ousecrd@dost.gov.ph, Laarni

Good Day Team,

This is to inform you that the Governing Council (GC) has confirmed the approval of the project on its meeting today, April 16, 2020. However, it was recommended to change the title to "Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City" (removing the phrase *"for a NICER Program"*)

Kindly submit a revised proposal.

For your reference and perusal.

Regards,

ENGR. MARYBHEL D. MANAOIS

Science Research Specialist

Environment Sector

Industrial Technology Development Division

Pre-implementation of the Approved Scoping Project

PUP Scoping - Pre-Implementation Guidelines Inbox ×

Marybhel Manaois Thu, Apr 30, 3:10 PM

to me, ginnoandres@gmail.com, manuel_muhi@yahoo.com, MMIEERDC, s4c.ousecrd@dost.gov.ph, Laarni, Liz, Morris

Good Day Team,

This is with reference to the newly approved PCIEERD-GIA project titled, ***"Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City."***

As of April 29, 2020, the MOA and the LIB of the project has already been approved by Dr. Paringit, and the funds are already cleared for preparation of LDDAP. The official start of implementation date is ***May 04, 2020***. You may begin with the activities that can be done despite the extension of the ECQ. We also wish to be updated by any progress/plans the project has towards its implementation.

In addition, I have attached the Pre-Implementation Presentation and revised DOST-GIA Forms for your reference and guidance.
For any inquiry you may reach me/us via email.

We hope for the successful implementation of the project!

Thank you and keep safe!

Approval of DOST Governing Council to the Php 1 million Scoping Project for 2 months

PUP Scoping Project - GC Confirmation Inbox ×

Marybhel Manaois Thu, Apr 16, 3:34 PM

to me, ginnoandres@gmail.com, Glenda, MMIEERDC, manuel_muhi@yahoo.com, Ruel, s4c.ousecrd@dost.gov.ph, Laarni

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Science Research Specialist

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PUP Scoping - Pre-Implementation Guidelines Inbox ×

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In addition, I have attached the Pre-Implementation Presentation and revised DOST-GIA Forms for your reference and guidance.
For any inquiry you may reach me/us via email.

We hope for the successful implementation of the project!

Thank you and keep safe!

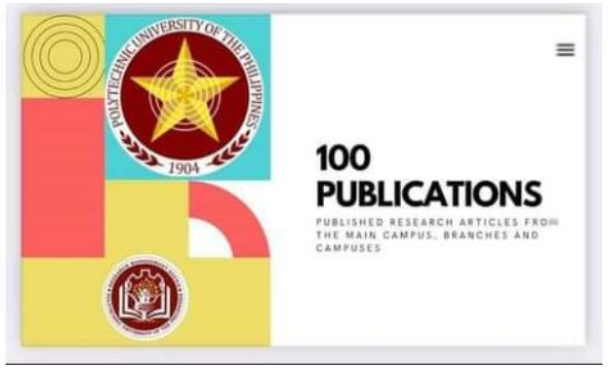
Report of R&D breakthroughs of PUP

President Dr. Manuel M. Muhi
10 Pillars Reform Agenda • Pillar 1: Dynamic, Transformational, and Responsible Leadership
• Pillar 2: Responsive and Innovative Curricula and Instruction
• Pillar 3: Enabling and Productive Learning Environment
• Pillar 4: Holistic Student Development and Engagement
• Pillar 5: Empowered Faculty Members and Employees
• **Pillar 6: Vigorous Research Production and Utilization**
• Pillar 7: Global Academic Standards and Excellence
• Pillar 8: Synergistic, Productive, Strategic Networks and Partnerships
• Pillar 9: Active and Sustained Stakeholders' Engagement
• Pillar 10: Sustainable Social Development Programs and Projects

PUP deposits first gene sequences in GenBank

Jan Bernel Padolina, News, Communication Management Office

For the first time, the Polytechnic University of the Philippines (PUP) team implementing the project LAMP (Loop-mediated isothermal amplification) Detection Assays for Anthracnose, Stem-end Rot, and Scab Disease Pathogens in Philippine 'Carabao' Mango" successfully deposited and published ITS 1-2 (Internal Transcribed Spacer 1 - 2) gene sequences of Lasiodiplodia sp. isolates to the GenBank. The sequences were obtained from the DNA of Lasiodiplodia sp. found to be the causative fungi of stem-end rot disease in Philippine mango.



Updates for 100 Publications as of December 2020

SCOPUS (55)
Web of Science (17)
ASEAN Citation Index (5)
Others (48) - International, Refereed Journals (45),
Conference Paper (2), and
Discussion Paper (1)

Total Publications: 125

#125Articles
#SintangPaaralan

Bacterial Assemblages and Identity Library Online (BASILIO) Website: A Bacterial Database

> Asian Pac J Cancer Prev. 2020 Aug 1;21(8):2297-2306. doi: 10.31557/APJCP.2020.21.8.2297.

In Silico Approach in Designing a Novel Multi-Epitope Vaccine Candidate against Non-Small Cell Lung Cancer with Overexpressed G Protein-Coupled Receptor 56

Leana Rich M Herrera [1]

Affiliations + expand

PMID: 32856858 DOI: 10.31557/APJCP.2020.21.8.2297

Free article

Conduct research proposal writing

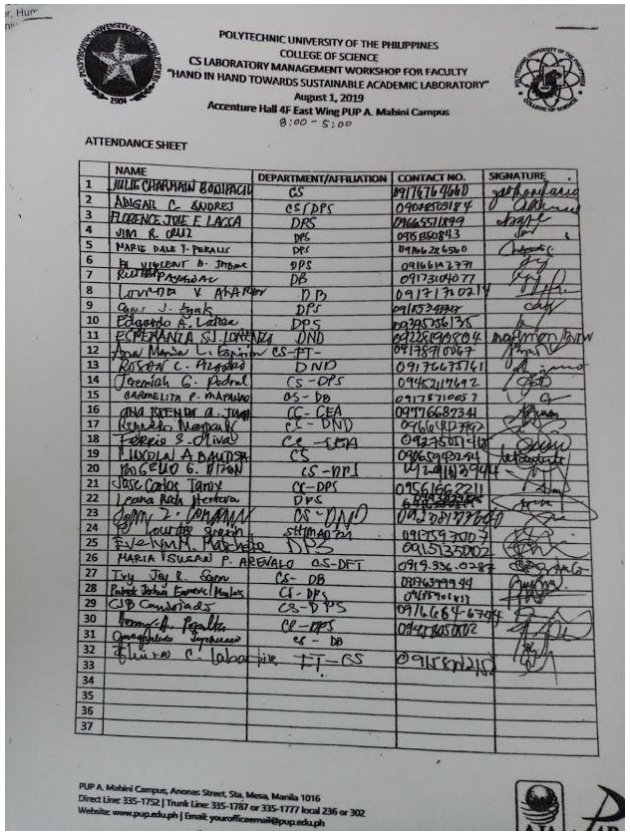
All classes were taught how to write research proposals using DOST format in their course.

Faculty from the food technology department was assisted in writing their proposal to PCAARD during the MMIEERDC proposal writeshop.

Conducted writeshop to Scoping project members and DOST proposal forms were introduced.

Conducted writeshop to TESDA Faculty.

Safety guideline orientation to Faculty



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF SCIENCE
CS LABORATORY MANAGEMENT WORKSHOP FOR FACULTY
"HAND IN HAND TOWARDS SUSTAINABLE ACADEMIC LABORATORY"
August 1, 2019
Accenture Hall 4F East Wing PUP A. Mabini Campus
8:00 - 5:00

ATTENDANCE SHEET

	NAME	DEPARTMENT/AFFILIATION	CONTACT NO.	SIGNATURE
1		CS		
2	ABIGAIL C. ANDRES	CS/DPS		
3	FLORENCE JOIE F. LACSA	DPS		
4	JIMA R. CRUZ	DPS		
5		DPS		
6		DPS		
7		DB		
8		DPS		
9		DPS		
10		DPS		
11		DND		
12		CS-PFT		
13		DND		
14		CS-DPS		
15		CS-DB		
16		CC-CEA		
17		CC-DND		
18		CC-CEA		
19		CS		
20		CS-DPI		
21		CC-DPS		
22		DPS		
23		CS-DND		
24				
25		DPS		
26		CS-DFT		
27		CS-DB		
28		CS-DPS		
29		CS-DPS		
30		CC-DPS		
31		CC-DB		
32		PT-CS		
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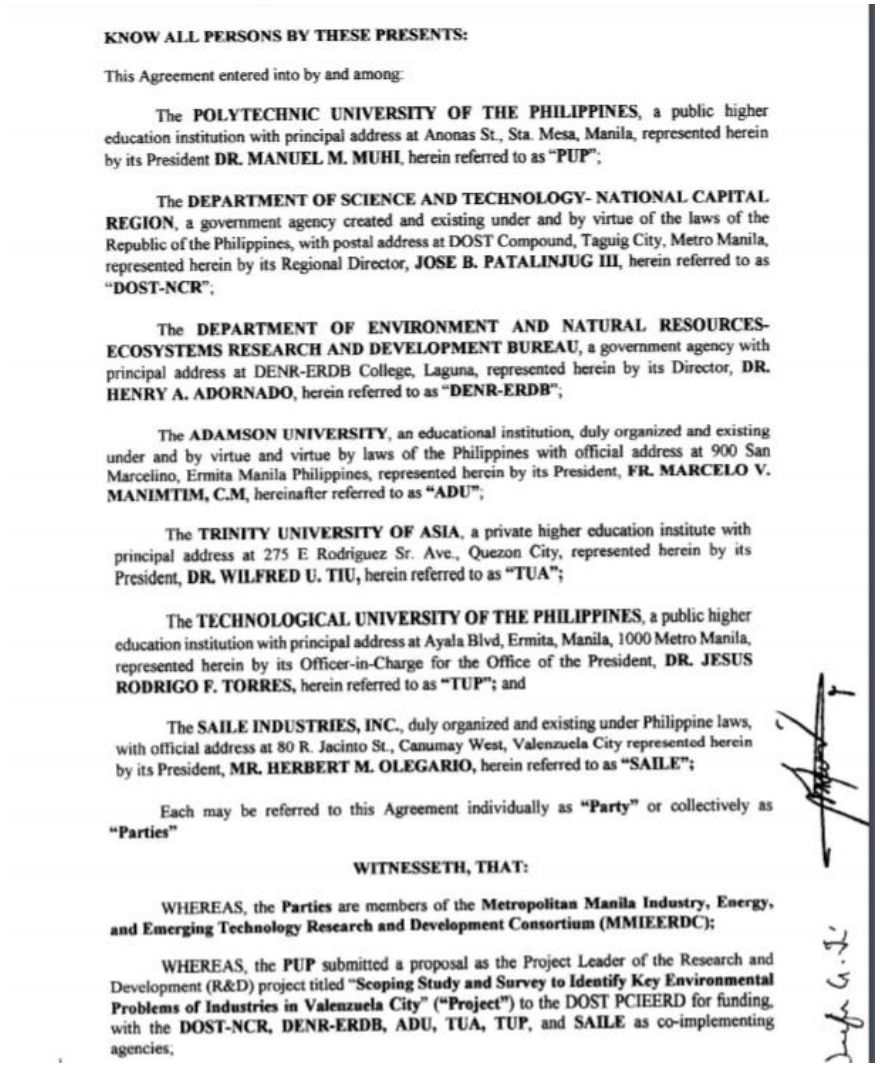
36				
37				

PUP A. Mabini Campus, Anonas Street, Sta. Mesa, Manila 1016
Direct Line: 335-1752 | Trunk Line: 335-1787 or 335-1777 local 236 or 302
Website: www.pup.edu.ph | Email: yourofficemail@pup.edu.ph

Research collaborations between universities in the Philippines



KNOW ALL PERSONS BY THESE PRESENTS:

This Agreement entered into by and among:

The **POLYTECHNIC UNIVERSITY OF THE PHILIPPINES**, a public higher education institution with principal address at Anonas St., Sta. Mesa, Manila, represented herein by its President **DR. MANUEL M. MUHI**, herein referred to as **"PUP"**;

The **DEPARTMENT OF SCIENCE AND TECHNOLOGY- NATIONAL CAPITAL REGION**, a government agency created and existing under and by virtue of the laws of the Republic of the Philippines, with postal address at DOST Compound, Taguig City, Metro Manila, represented herein by its Regional Director, **JOSE B. PATALINJUG III**, herein referred to as **"DOST-NCR"**;

The **DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES-ECOSYSTEMS RESEARCH AND DEVELOPMENT BUREAU**, a government agency with principal address at DENR-ERDB College, Laguna, represented herein by its Director, **DR. HENRY A. ADORNADO**, herein referred to as **"DENR-ERDB"**;

The **ADAMSON UNIVERSITY**, an educational institution, duly organized and existing under and by virtue and virtue by laws of the Philippines with official address at 900 San Marcelino, Ermita Manila Philippines, represented herein by its President, **FR. MARCELO V. MANIMTIM, C.M**, hereinafter referred to as **"ADU"**;

The **TRINITY UNIVERSITY OF ASIA**, a private higher education institute with principal address at 275 E Rodriguez Sr. Ave., Quezon City, represented herein by its President, **DR. WILFRED U. TIU**, herein referred to as **"TUA"**;

The **TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES**, a public higher education institution with principal address at Ayala Blvd, Ermita, Manila, 1000 Metro Manila, represented herein by its Officer-in-Charge for the Office of the President, **DR. JESUS RODRIGO F. TORRES**, herein referred to as **"TUP"**; and

The **SAILE INDUSTRIES, INC.**, duly organized and existing under Philippine laws, with official address at 80 R. Jacinto St., Canumay West, Valenzuela City represented herein by its President, **MR. HERBERT M. OLEGARIO**, herein referred to as **"SAILE"**;

Each may be referred to this Agreement individually as **"Party"** or collectively as **"Parties"**

WITNESSETH, THAT:

WHEREAS, the **Parties** are members of the **Metropolitan Manila Industry, Energy, and Emerging Technology Research and Development Consortium (MMIEERDC);**

WHEREAS, the **PUP** submitted a proposal as the Project Leader of the Research and Development (R&D) project titled **"Scoping Study and Survey to Identify Key Environmental Problems of Industries in Valenzuela City" ("Project")** to the DOST PCIEERD for funding, with the **DOST-NCR, DENR-ERDB, ADU, TUA, TUP,** and **SAILE** as co-implementing agencies;

Coordinate with Kyoto University for research studies

Springer Link

Special Feature: Original Article | Published: 25 March 2020

Factors characterizing phosphate oxygen isotope ratios in river water: an inter-watershed comparison approach

Jun'ichiro Ide, Takuya Ishida, Abigail P. Cid-Andres, Ken'ichi Osaka, Tomoya Iwata, Takuya Hayashi, Masanori Akashi, Ichiro Tayasu, Adina Paytan & Noboru Okuda

Limnology **21**, 365–377(2020) | Cite this article

508 Accesses | **1** Citations | **4** Altmetric | Metrics

Abstract

We compared the oxygen isotope ratio of dissolved phosphate $(\delta^{18}O_{PO_4})$ in two rivers with different land-cover and geological features (Ado River and Yasu River) within Lake Biwa basin, central Japan, to explore what factor primarily characterizes the $\delta^{18}O_{PO_4}$. Mean values of $\delta^{18}O_{PO_4}$ in river water were 19.0 ± 2.4‰ (n = 7) in Ado River and 13.1 ± 2.3‰ (n = 15) in Yasu River, which were significantly different. Comparisons of $\delta^{18}O_{PO_4}$ between river

Environmental Science & Technology

Article

Cite This: *Environ. Sci. Technol.* XXXX, XXX, XXX–XXX

pubs.acs.org/est

Identification of Phosphorus Sources in a Watershed Using a Phosphate Oxygen Isoscape Approach

Takuya Ishida,*,† Yoshitoshi Uehara,† Tomoya Iwata,‡ Abigail P. Cid-Andres,§ Satoshi Asano,∥ Tohru Ikeya,† Ken'ichi Osaka,⊥ Jun'ichiro Ide,# Osbert Leo A. Privaldos,▽ Irisse Bianca B. De Jesus,○ Elfritzson M. Peralta,○ Ellis Mika C. Triño,○ Chia-Ying Ko,◆ Adina Paytan,¶ Ichiro Tayasu,† and Noboru Okuda†

†Research Institute for Humanity and Nature, 457-4, Motoyama, Kamigamo, Kyoto, 603-8047, Japan

‡Faculty of Life and Environmental Science, University of Yamanashi, 4-4-37, Takeda, Kofu, Yamanashi 400-8510, Japan

§Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Anonas Street. Sta. Mesa, Manila 1016, Philippines

∥Lake Biwa Environment Research Institute, 5-34, Yanagasaki, Ohtsu, Shiga 520-0022, Japan

⊥School of Environmental Sciences, The University of Shiga Prefecture, 2500, Hasaka, Hikone, Shiga 522-8533, Japan

#Institute of Decision Science for a Sustainable Society, Kyushu University, 394, Tsubakuro, Sasaguri, Fukuoka 811-2415, Japan

▽Laguna Lake Development Authority, National Ecology Center, East Avenue, Diliman, Quezon City, 1101, Philippines

○The Graduate School, University of Santo Tomas, España Boulevard, Manila 1015, Philippines

◆Institute of Fisheries Science & Department of Life Science, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei 10617, Taiwan

¶Institute of Marine Sciences, University of California Santa Cruz, 1156 High Street, Santa Cruz, California 95064, United States

Supporting Information

MEMORANDUM OF UNDERSTANDING

between

UNIVERSITY OF BENGKULU
INDONESIA

and

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

With the objective of strengthening mutual cooperation between **UNIVERSITY OF BENGKULU, INDONESIA** (hereinafter referred to as "**UNIB**"), having its address at Jl. W.R. Supratman, Kandang Limun, Bengkulu 38122, Indonesia, and **POLYTECIINIC UNIVERSITY OF THE PHILIPPINES** (hereinafter referred to as "**PUP**"), having its address at Anonas St. Sta. Mesa, Manila 1016, Philippines, have concluded the following intentions:

1. Both parties agree to exercise their best efforts to develop the following forms of collaboration:
   i. Student exchange;
   ii. exchange of invitations to scholars (faculty, research personnel and graduate students) for lectures, visits, and sharing of experiences;
   iii. joint research and educational activities;
   iv. exchange of invitations to scholars for participation in conferences, symposia, and seminars;
   v. cultural activities; and
   vi. any other areas of collaboration maybe mutually agreed by both parties.
2. The terms of the specific areas of agreement shall be further considered and agreed upon in writing by the Parties prior to the initiation of any particular activity.
3. Any specific program will be subject to mutual consent and approval by both parties.
4. This Memorandum of Understanding (MoU) will be effective when both Parties have signed this certificate and shall remain in force for five (5) years, subject from time to time to revision or modification by mutual agreement. Each Party

written notification to the partner institution ninety (90) days in advance of termination.
5. The possibility and the terms of a renewal of the agreement will be discussed by the representatives of the two universities no less than six months prior to the natural termination of the current agreement.
6. The Parties agree that this MoU is not a formal legal agreement giving rise to any legal relationship, right, duties or consequences, but it is only a definite expression and record of the purpose of the Parties to which the Parties are bound in honor only.
7. The implementation of this MoU shall be constructed and governed in accordance with Laws of both counties.

UNIVERSITY OF BENGKULU INDONESIA	POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Prof. RIDWAN NURAZI	Dr. MANUEL M. MUHI
Rector	*President*
Date: 07/09/2019	Date:

RJC

RASĀYAN *J. Chem.*
Vol. 13 | No. 1 |249 - 254| January - March | 2020
ISSN: 0974-1496 | e-ISSN: 0976-0083 | CODEN: RJCABP
http://www.rasayanjournal.com
http://www.rasayanjournal.co.in

SILICA EXTRACTION FROM BEACH SAND FOR DYES REMOVAL: ISOTHERMS, KINETICS AND THERMODYNAMICS

M. Lutfi Firdaus[1,*], Fitri E. Madina[1], Sasti Yulia F.[1], Rina Elvia[1], Soraya N. Ishmah[2], Diana R. Eddy[2], Abigail P. Cid-Andres[3]
[1]Graduate School of Science Education, University of Bengkulu, Bengkulu 38371, Indonesia
[2]Department of Chemistry, Universitas Padjadjaran, Jatinangor 45363, Indonesia
[3]Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Manila 1016, Philippines
*E-mail: lutfi@unib.ac.id

ABSTRACT
Beach sand is an abundant natural resource that contains silica minerals with many benefits. One of the uses of silica is to remove synthetic dyes that are toxic to biota in the environment. The goal of this research was to extract and characterize the silica from Bengkulu beach sand and to apply it as dyes adsorbent. The extraction of silica consisted of two steps that were potassium silicate formation and gel formation. The gel was formed by adding strong acid into a potassium silicate solution. Silica's particle size and crystallinity were characterized using PSA and XRD, respectively. SEM-EDS was used to characterize the morphology and chemical composition of extracted silica. The effect of the different experimental settings, like pH, temperature, contact time, the concentration of dyes and adsorbent weight, on adsorption of dyes were monitored as well as the study of adsorption isotherms, kinetics, and thermodynamics. At equilibrium, synthetic dyes adsorption to silica suited to the Freundlich model producing correlation coefficients (R^2) of 0.853 and 0.976 for remazol blue and congo red, respectively. At optimum conditions, maximum adsorption capacities for remazol blue and congo red were 133 and 131 mg/g, respectively. The research implied that adsorption of dyes to silica fitted the pseudo-second-order model with thermodynamic values of $\Delta G°$, $\Delta H°$, and $\Delta S°$ were -4.04 to 2.19 kJ/mol, -13.53 to -4.726 kJ/mol, and 0.019 to 0.021 J/mol.K, respectively. By using these results, we resolve that the adsorption of dyes trends was exothermic and spontaneous. In addition, the reaction increases the system's entropy. This study emphasizes the potential of silica from the sand beach as a substitute economical adsorbent for the toxic dyes removal.
Keywords: Silica, Remazol Blue, Congo Red, Adsorption, Isotherms, Kinetic, Thermodynamics

Facilitated signing of MOU University of Bengkulu Indonesia and PUP

Editorial Team

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Dr. M. Lutfi Firdaus, University of Bengkulu, Indonesia

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bidang pendidikan sains, matematika, fisika, kimia dan biologi untuk berkontribusi dan mengirimkan naskahnya ke jurnal PENDIPA. Akhir kata, seperti kata pepatah "Tiada gading yang tak retak", maka saran dan kritik yang membangun dari semua pihak selalu kami harapkan.

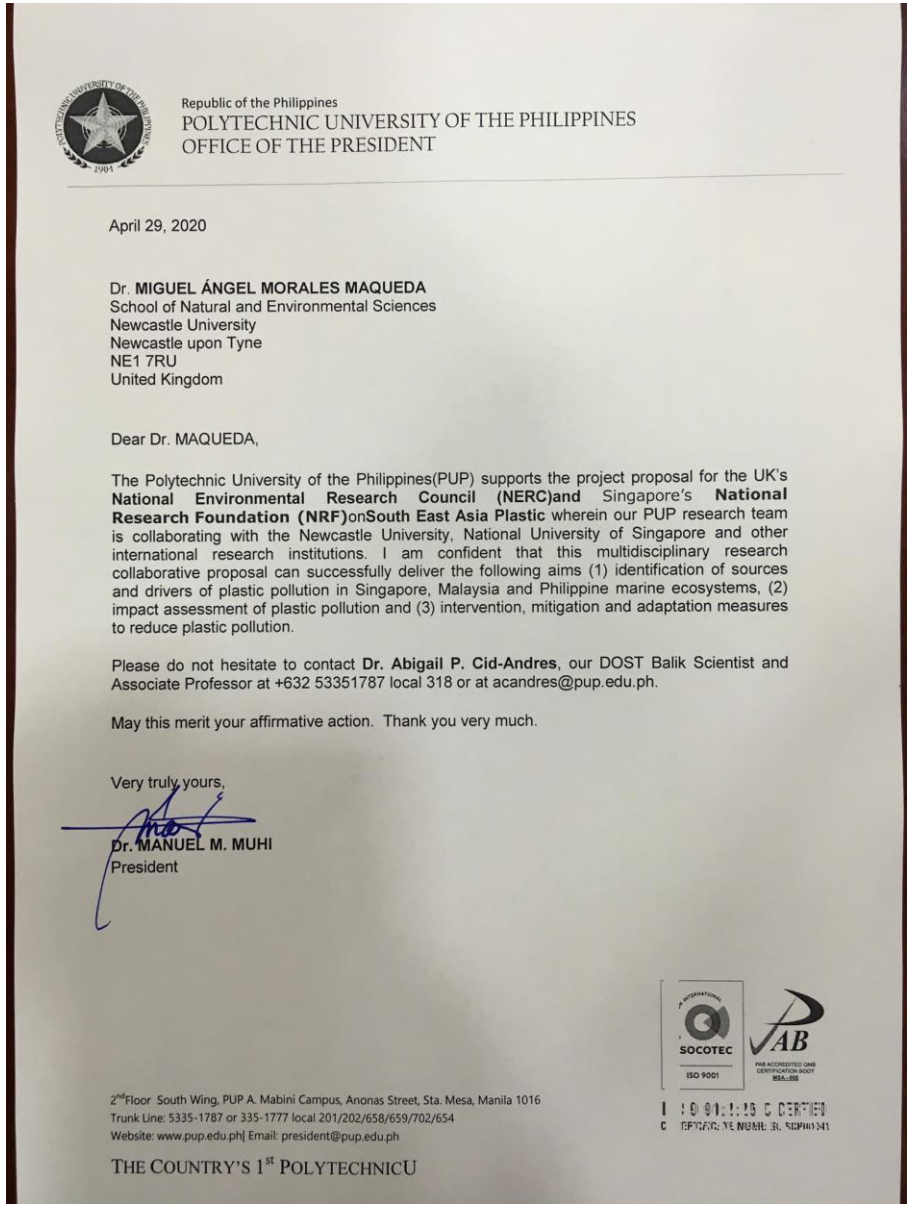
Ketua Dewan Redaksi,

M. Lutfi Firdaus

Publisher
Graduate School of Science Education,
University of Bengkulu
Jl. WR Supratman, Bengkulu 38371
https://ejournal.unib.ac.id/index.php/pendipa
Email: pascapendipa@unib.ac.id

PENDIPA Journal is indexed by CrossRef, Google Scholar, PKP Index, Academia.edu, Mendeley, etc.
Subscription costs: Rp. 0,- (Free to download)
Publication costs: Rp. 300.000,- (To be paid after acceptance of the manuscript).

DR. ABIGAIL C. ANDRES WORK FROM HOME ACCOMPLISHMENTS MAR – MAY 2020



Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
OFFICE OF THE PRESIDENT

April 29, 2020

Dr. **MIGUEL ÁNGEL MORALES MAQUEDA**
School of Natural and Environmental Sciences
Newcastle University
Newcastle upon Tyne
NE1 7RU
United Kingdom

Dear Dr. MAQUEDA,

The Polytechnic University of the Philippines(PUP) supports the project proposal for the UK's **National Environmental Research Council (NERC)and** Singapore's **National Research Foundation (NRF)**on**South East Asia Plastic** wherein our PUP research team is collaborating with the Newcastle University, National University of Singapore and other international research institutions. I am confident that this multidisciplinary research collaborative proposal can successfully deliver the following aims (1) identification of sources and drivers of plastic pollution in Singapore, Malaysia and Philippine marine ecosystems, (2) impact assessment of plastic pollution and (3) intervention, mitigation and adaptation measures to reduce plastic pollution.

Please do not hesitate to contact **Dr. Abigail P. Cid-Andres**, our DOST Balik Scientist and Associate Professor at +632 53351787 local 318 or at acandres@pup.edu.ph.

May this merit your affirmative action. Thank you very much.

Very truly yours,

Dr. MANUEL M. MUHI
President

2nd Floor South Wing, PUP A. Mabini Campus, Anonas Street, Sta. Mesa, Manila 1016
Trunk Line: 5335-1787 or 335-1777 local 201/202/658/659/702/654
Website: www.pup.edu.ph| Email: president@pup.edu.ph

THE COUNTRY'S 1st POLYTECHNICU

WWF

April 30, 2020

DR. MIGUEL ÁNGEL MORALES MAQUEDA
School of Natural and Environmental Sciences
Newcastle University
Newcastle upon Tyne
NE1 7RU
United Kingdom

Dear **Dr. Maqueda:**

This letter expresses the World Wide Fund for Nature (WWF) – Philippines' support to the Polytechnic University of the Philippines (PUP)' project proposal for the UK's **National Environmental Research Council (NERC)** and Singapore's **National Research Foundation (NRF)** on **South East Asia Plastic** wherein the PUP research team is collaborating with the Newcastle University, National University of Singapore and other international research institutions.

WWF - Philippines understands that this is a multidisciplinary research collaborative proposal that aims to achieve the following objectives: (1) identification of sources and drivers of plastic pollution in Singapore, Malaysia and Philippine marine ecosystems; (2) impact assessment of plastic pollution; and (3) intervention, mitigation and adaptation measures to reduce plastic pollution. We at WWF Philippines are working towards the vision of having no plastic in nature through our work with Plastic Smart Cities, Extended Producer's Responsibility and Advocacy for a Legally Binding Treaty to Address Marine Plastic Pollution, among others. Thus, we welcome the proposed research on the impacts of plastic pollution in a marine environment by a state university like PUP with your institution! We can locally work with PUP that may potentially consider engaging with our city partners in the country and collaborate with us to develop waste flow diagrams for these locales, which in turn can inform your proposed study.

May this merit your affirmative action. Thank you very much.

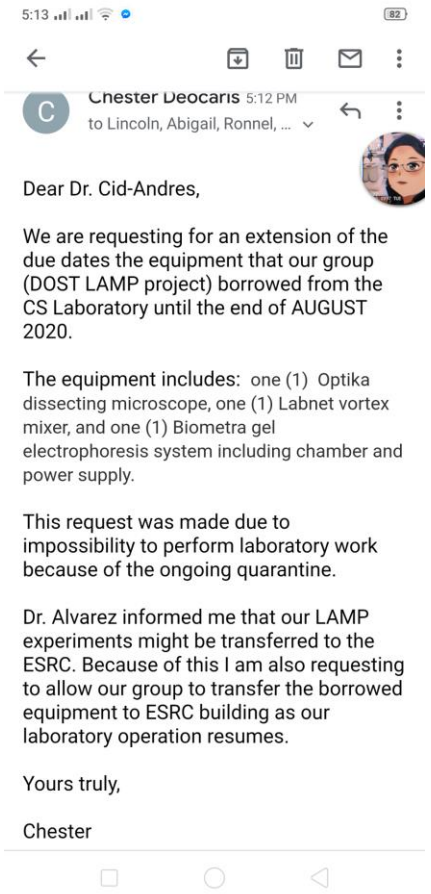
Very truly yours,

JOSE ANGELO M. PALMA
Executive Director
WWF - Philippines

Endorsement for UK-Singapore-Malaysia-PUP project proposal

Collaborated with WWF Philippines

ASSIST FACULTY, RESEARCHERS AND STUDENTS



Chester Deocaris 5:12 PM
to Lincoln, Abigail, Ronnel, ...

Dear Dr. Cid-Andres,

We are requesting for an extension of the due dates the equipment that our group (DOST LAMP project) borrowed from the CS Laboratory until the end of AUGUST 2020.

The equipment includes: one (1) Optika dissecting microscope, one (1) Labnet vortex mixer, and one (1) Biometra gel electrophoresis system including chamber and power supply.

This request was made due to impossibility to perform laboratory work because of the ongoing quarantine.

Dr. Alvarez informed me that our LAMP experiments might be transferred to the ESRC. Because of this I am also requesting to allow our group to transfer the borrowed equipment to ESRC building as our laboratory operation resumes.

Yours truly,

Chester

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Research, Extension & Development
Intellectual Property Management Office
Center for Technology Transfer and Enterprise Development

This

Certificate of Recognition

is hereby awarded to

COLLEGE OF SCIENCE (Dept.of Physical Science)

for winning 2nd place during the "Grand Innovation Exhibit 2019"

with the theme, ISKOinventors: Discovering New Technologies in Pursuit Towards University's Commercialization Strategies,
for the entry, "LABORATORY WARNING SYSTEM FOR IMPROPER WASTE DISPOSAL" (Electrical Category)

Given this 15th day of October , 2019 at Dr. Nemesio Prudente Conference Room, 4th Floor, South Wing, Room 402
Polytechnic University of the Philippines, Sta. Mesa, Manila

DR. GINNO L. ANDRES
Director, Intellectual Property Management Office

DR. ANNA RUBY P. GAPASIN
Vice President for Research, Extension and Development

EMANUEL C. DE GUZMAN, PhD.
University President

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
Office of the Vice President for Research, Extension & Development
Intellectual Property Management Office
Center for Technology Transfer and Enterprise Development

This

Certificate of Recognition

is hereby awarded to

COLLEGE OF SCIENCE (Dept. of Physical Science)

for winning 3rd place during the "Grand Innovation Exhibit 2019"

with the theme, ISKOinventors: Discovering New Technologies in Pursuit Towards University's Commercialization Strategies,
for the entry, "C.L.D CHEMICAL INSPECTING DEVICE" (Chemical Category)

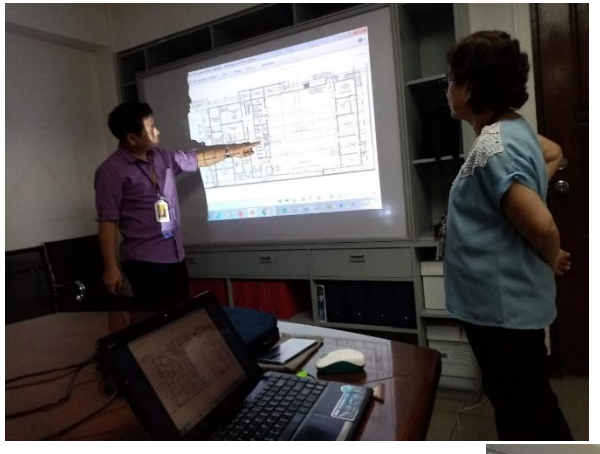
Given this 15th day of October , 2019 at Dr. Nemesio Prudente Conference Room, 4th Floor, South Wing, Room 402
Polytechnic University of the Philippines, Sta. Mesa, Manila

DR. GINNO L. ANDRES
Director, Intellectual Property Management Office

DR. ANNA RUBY P. GAPASIN
Vice President for Research, Extension and Development

EMANUEL C. DE GUZMAN, PhD.
University President

ASSISTANCE TO THE DEPT OF FOOD TECHNOLOGY COLLEGE OF SCIENCE MARINE PRODUCTS BUILDING DTI PUP PARTNERSHIP



LECTURE FOR CHEMISTRY CLASSES

SIGNIFICANT CONTRIBUTIONS

ABIGAIL P. CID

BALIK SCIENTIST 2018 - 2020

RATIONALE

Polytechnic University of the Philippines is one of the leading polytechnic university in the Philippines. However, they are in need of experts in Science that can boost their faculty to engage and propose researchers.

Dr. Abigail P. Cid conducted lectures, seminars/workshop on scientific proposal writing to enhance the research capability of the university. In addition to these, a proposal of an establishment of a chemistry laboratory to be housed at PUP will be submitted for grant-in-aid fundings.

Polytechnic University of the Philippines had 8 point agenda- (1) Pursuing Academic Excellence through Disciplinal Integrity, (2) Embedding a Culture of Research, (3) Assuring Transparency and Participatoriness in Giving Rewards and Sanctions, (4) Modernization and Upgrading of Physical Facilities, Equipment, Library and Campus Development, (5) Reconceptualization of Academic Freedom, (6) Institutionalizing Civil Society Engagement and Involved Extension Service Program, (7) Fiscal Responsibility and (8) Assessment of the Institutional Processes and Critical-Rational Review of the Entire Organization.

PUP has a science and technology research institute. The Institute for Science and Technology Research (ISTR) promotes the science and technology (S&T) research agenda of the University. It integrates holistic programs to implement various strategies in pursuing researches in the fields of life science, physical science, mathematics, engineering, as well as nutrition and food technology.

Significant contributions - Highlights (Places)

Php 10 M DOST PCIEERD
co project leader

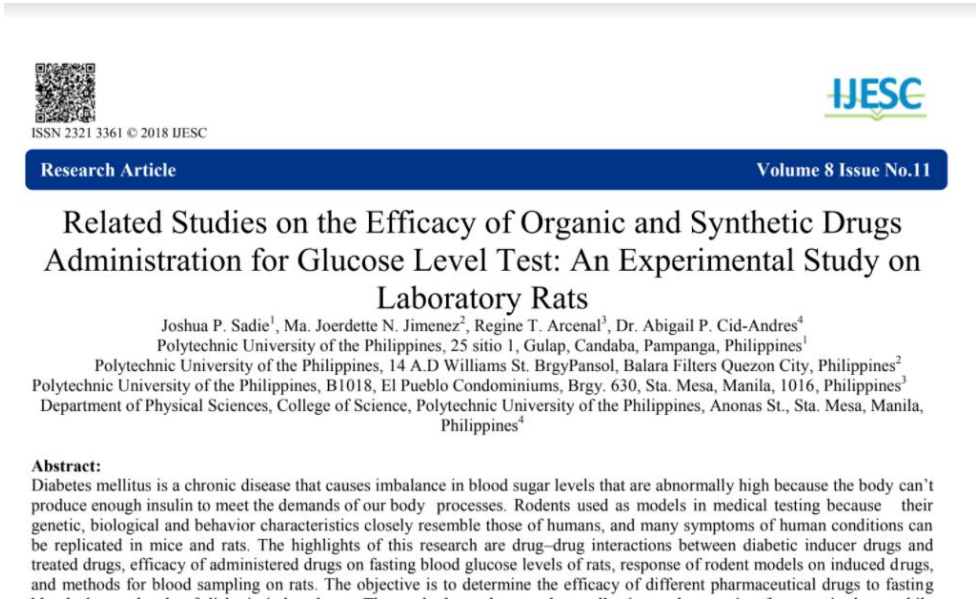
Php 15 M CHED for Engineering Fab Lab coordinator

Php 1 M DOST PCIEERD
project leader

ESRC

New installation of equipment and procurement

Significant contributions
- Highlights (publications)



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IJESC

Research Article Volume 8 Issue No.11

Related Studies on the Efficacy of Organic and Synthetic Drugs Administration for Glucose Level Test: An Experimental Study on Laboratory Rats

Joshua P. Sadie[1], Ma. Joerdette N. Jimenez[2], Regine T. Arcenal[3], Dr. Abigail P. Cid-Andres[4]
Polytechnic University of the Philippines, 25 sitio 1, Gulap, Candaba, Pampanga, Philippines[1]
Polytechnic University of the Philippines, 14 A.D Williams St. BrgyPansol, Balara Filters Quezon City, Philippines[2]
Polytechnic University of the Philippines, B1018, El Pueblo Condominiums, Brgy. 630, Sta. Mesa, Manila, 1016, Philippines[3]
Department of Physical Sciences, College of Science, Polytechnic University of the Philippines, Anonas St., Sta. Mesa, Manila, Philippines[4]

Abstract:
Diabetes mellitus is a chronic disease that causes imbalance in blood sugar levels that are abnormally high because the body can't produce enough insulin to meet the demands of our body processes. Rodents used as models in medical testing because their genetic, biological and behavior characteristics closely resemble those of humans, and many symptoms of human conditions can be replicated in mice and rats. The highlights of this research are drug–drug interactions between diabetic inducer drugs and treated drugs, efficacy of administered drugs on fasting blood glucose levels of rats, response of rodent models on induced drugs, and methods for blood sampling on rats. The objective is to determine the efficacy of different pharmaceutical drugs to fasting

IJESC

Research Article Volume 8 Issue No.12

A Review on Synthesis, Metal Complexes, Applications of Porphyrin Schiff Bases and its Possibility to be used as a Ligand for Quantitation of Metals

Shan Nicolai A. Villaluna[1], Shiela Marie O. Bueno[2], Shynnelzza F. Clemente[3], Abigail P. Cid-Andres[4]
Department of Physical Sciences
College of Science Polytechnic University of the Philippines, Anonas St., Sta. Mesa, Manila, 1016 Philippines

Abstract:
There have been increasing interests in developing synthetic routes for the synthesis of compounds as these have become one of the dominants ways in developing the studies in the field of chemistry. This review paper mainly aims to highlight the different procedures conducted from previous and recent studies regarding the synthesis and metal complexation of porphyrin Schiff bases. Some Modifications ware discussed in order to identify their effect on the Characteristic of the Porphyrin. These compounds exhibit various applications on different fields but this paperfocused more on its application for metal quantitation. Porphyrin are known to have strong complexing ability and was successfully complexed with different kinds of metals. Relatively, Schiff Bases was used in many studies about method development for metal quantitation. Developing studies about porphyrin Schiff base complexes could solve some environmental or health issues regarding heavy metal management.

Keywords: Porphyrins, Schiff bases, Porphyrin Synthesis, Metalloporphyrin, Metal Quantitation

1. Introduction

Many chemical substances do not occur naturally and a wide variety of products we use and consume are made up of synthesized chemicals. The fact that chemical synthesis gives us the ability to make these chemical compounds shows how important and valuable chemical synthesis is. Synthesis comes

out of four pyrrole rings associated by methine spans. The carbon on the methine (-CH=) bridge are called meso-position, while the peripheral pyrrolic positions are called as B-positions. Also, porphyrins contain 22 conjugated π electrons but only 18 π electrons are necessary to maintain a closed conjugated aromatic system. The 4 remaining π electrons

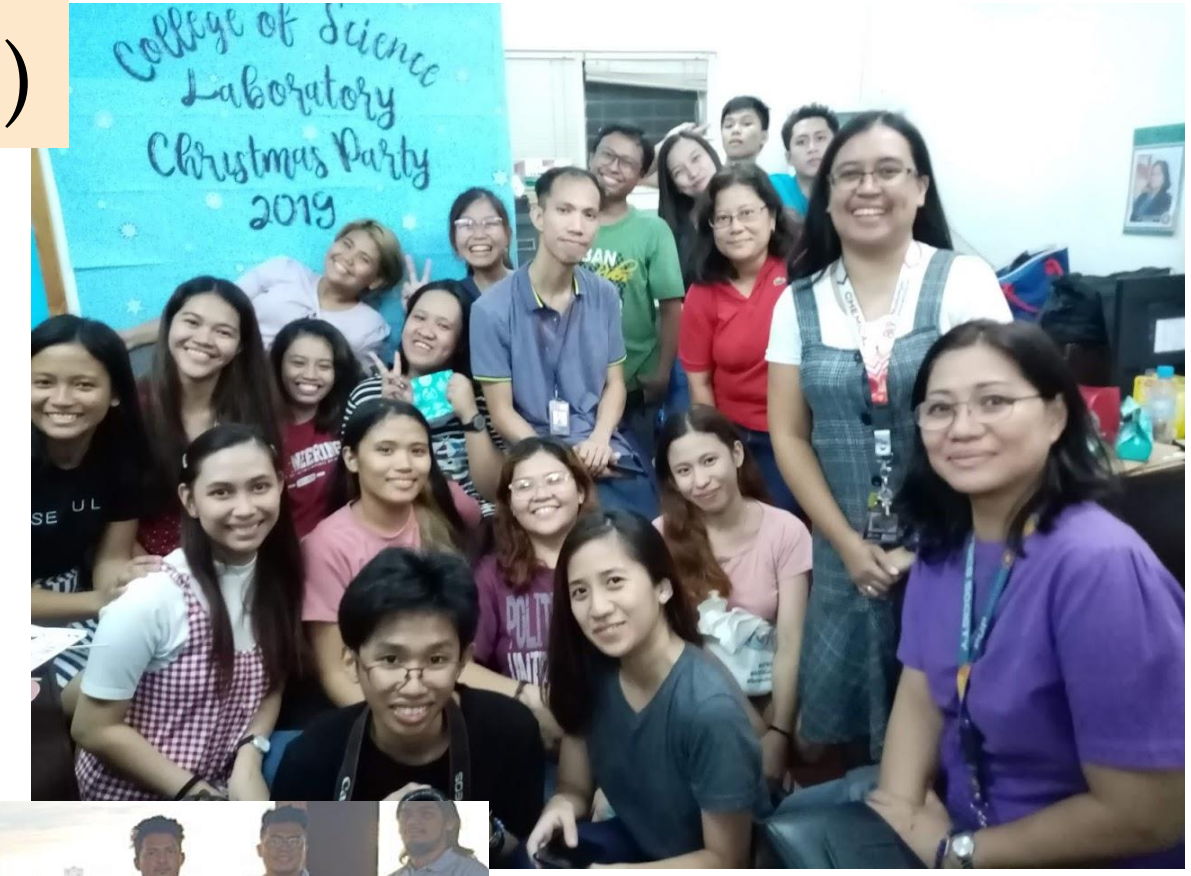
Significant contributions
- Highlights (proposals)

DOST Form No. 2B
DETAILED RESEARCH & DEVELOPMENT PROJECT PROPOSAL
(For the Component Project)
(To be accomplished by the researcher)

(1) Title/Leader/Gender/Agency/Address/Telephone/fax/E-mail **Program Title: Fabrication of a FPD Kit (Formalyde and Pesticide Detection Kit)** **Project Title: Fabrication of a formaldehyde and organochlorine pesticides Stage I** **Leader/Gender: ABIGAIL P. CID-ANDRES/ Female** **Agency/Address:** Polytechnic University of the Philippines **Telephone/Fax/E-mail:** 090785043184/cidabigail1@gmail.com	
(2) Cooperating Agencies Polytechnic University of the Philippines FEATI University Marikina Polytechnic College	**(3) Research & Development Station** PUP Sta. Mesa, Manila
(4) Site of implementation/Municipality/District/Province/Region **Sta. Mesa/Manila/NCR**	
(5) Classification **Research:** **Development:** **____ Basic** **_____ Pilot Testing** **__x__ Applied** **_____Tech. Promotion/ Commercialization**	**(6) Mode of Implementation** **_____ Single Agency** **___x___ Multi Agency**
(7) Sector/Commodity FOOD SAFETY, QUALITY AND PRODUCT	**(8) Discipline** Food safety and quality

Significant contributions - Highlights (people)

People trained
Research opportunities



volunteerism

Significant contributions - Highlights

Policy
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES LABORATORY POLICIES

Partnership
WITHIN PUP
WITHIN PHILIPPINES
WITH INTERNATIONAL INSTITUTIONS

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
1. Assist and provide expert advice for DOST grants	Written report	100%	Extended help in the assistance of use of laboratory equipment, invited to PUP Chemistry congress

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
2. Develop proposals and conduct research	Corresponding project outputs such as on solid phase extraction techniques and its fabrication but not limited to ISI publication/s, place/s developed, and list/number of people mentored,	100%	

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
3. Establishment of research laboratory with a thrust on environmental health including the creation of a waste treatment facility	• Comprehensive and sustainable research plan • Documentation of the establishment of the facility • Highlights of meeting with stakeholders and recommendation report	100%	

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
4.Yearly submission of proposals to DOST PCIEERD aligned with the HNRDA	• Copies of submitted research proposals	100%	
5. Coordinate research and development activities at PUP	Report of R&D breakthroughs of PUP	100%	

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
6. Conduct research proposal writing workshop/s for PUP faculty and researchers for the submission of their respective proposals to DOST and other funding institutions	• Packaged research project proposals ready for submission	100%	

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
7. Establish research collaborations between universities in the Philippines	• Highlights of the meeting • Recommendation report • MOU's and list of students/researchers and faculty members participating in the linkage	100%	

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
8.Coordinate with Kyoto University for future collaborations	• Research Plan • Minutes of the meeting	100%	
9.Assist faculty, researchers and students in their research study	• List of faculty and students mentored • Highlights of their respective research works	100%	

Summary

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
10. Conduct lectures in Chemistry and related course	• Class lists for the lectures	100%	
11. Act as external reviewer for PCIEERD funded projects when needed	List of refereed projects	NA	Attended project meetings

Summary

Additional activities conducted

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
Additional activities conducted			
1. Laboratory management			
2. Assistance to FT building			

6Ps Summary

	Name	Duration	Place (if applicable)
People Trained/Collaborated	College of Science Lab Staff (2), Assistants(8), Volunteers (50), Students (1000+) Al air project members (9) Other scoping project members (18) Chem Students (200) Bio Students (200) Physics Students (100) College Faculty (40) TESDA Instructors (30) Others (100)	2018 - 2021	

6Ps Summary

	Title of Project	Date implemented	Funding Agency
Project Implemented	Fe in iodized salt Al air Scoping Metals and Plastics	2018 2019 2020 2021	USAID DOST PCIEERD Kyoto University, Japan

	Title of Publication	Date of Submission	Place (if applicable)
Publications	15 full paper publications 3 conference papers 18 submissions	2018 – 2021	

6Ps Summary

	Title of Presentation	Date	Place
Presentation made	Waste Management Proposal writing for TESDA Microbial Fuel Cells Proposal writing for DOST Indigenous material for waste treatment Isotope for biodiversity Scoping Reports	2018 - 2021	PUP, UP, MPC, web MMIEERDC, Davao, Indonesia

6Ps Summary

	Title of Proposal	Date of submission	Funding Agency
Proposal	Pesticide kit Microplastics Dengue kit NICER IDP for Chemistry Plastics in Asia Nutrients in Asia Iron in salt Al air Renewable energy Products from plastic wastes	2018 - 2021	DOST, Newton Fund, UKRI, CHED, DND, eAsia, etc

6Ps Summary

Others: may include equipment donation, patent, curriculum developed, machine blueprint, etc. LED TV donation from Batch mates Portable equipment High School project and immersion assistance student assistants, volunteers Accreditation documents ISO audit Instructional Manual Inorganic Chemistry and Analytical Chemistry others			

THE CHALLENGES

ABIGAIL P. CID

BALIK SCIENTIST

Challenges

Institution

Alignment of researches with priority goals

Budget to execute activities

Government procurement law

Organization

It hard to lead leaders or manage managers

You cannot please everybody

Some people quit or complain when things have to be done that needed hard work or challenging

Personal

Life work balance

Parenthood

Community

Pandemic

RECOMMENDATIONS

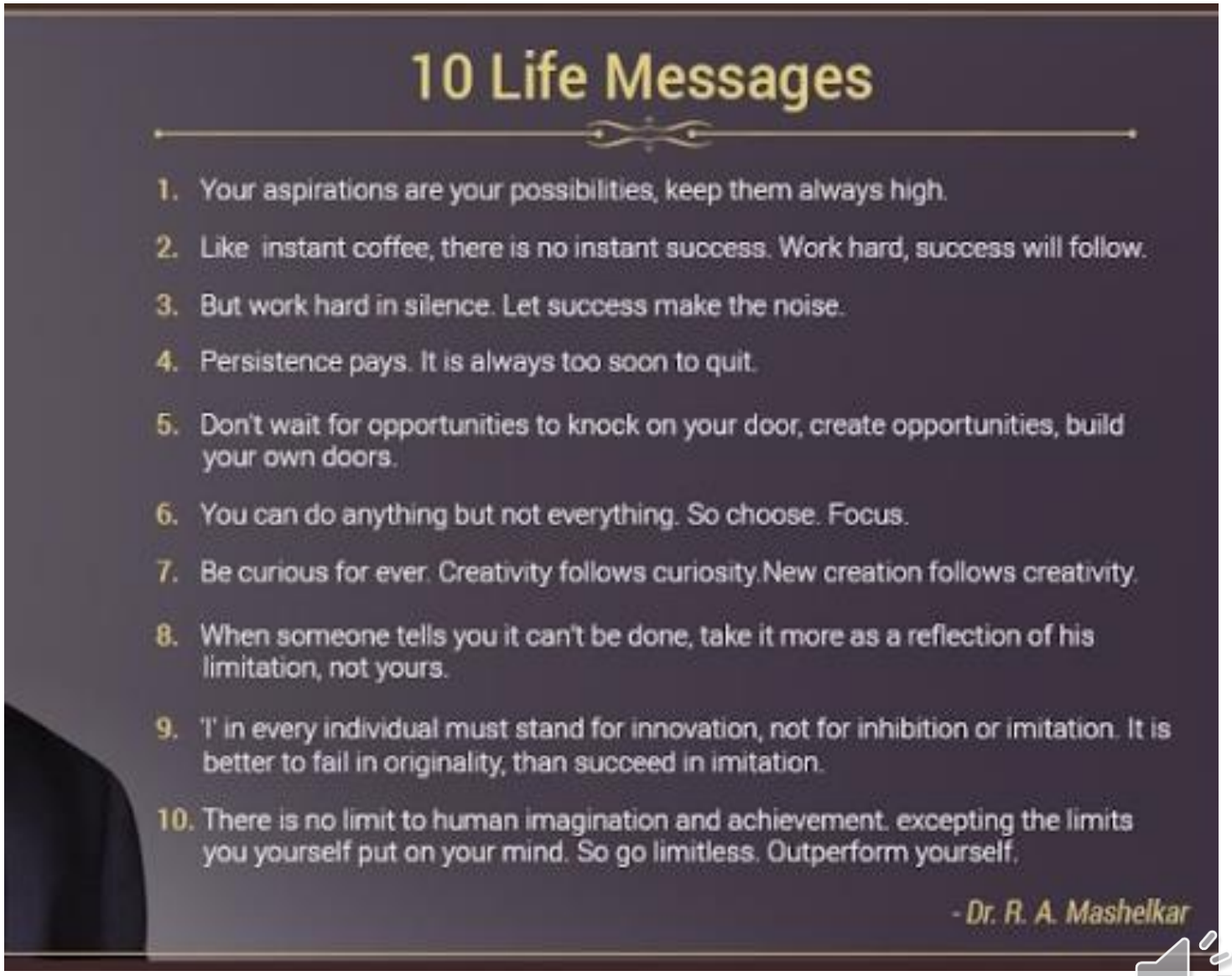
ABIGAIL P. CID

BALIK SCIENTIST

Strategize

Patience
Cheer up
Pray

Personal kumustahan
Make friends
Meet family members
Thank God for all
your blessings



THANK YOU VERY MUCH!!

DOST PCIEERD

DOST NCR

DOST CENTRAL

POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

ALL OTHER ORGANIZATIONS, UNIVERSITIES

OFFICIALS, FACULTY, STAFF AND STUDENTS

BALIK PUSO BALIK PINAS

CHALLENGING BUT EVERYTHING IS WORTH IT