



Specialized Philippine Enterprise Reference of Experts and Scientists (SPHERES)

INFORMATION RESOURCES AND ANALYSIS DIVISION
Science and Technology Information Institute
Department of Science and Technology
Gen. Santos Ave., Bicutan, Taguig City, Philippines



ABOUT THE SPECIALIZED PHILIPPINE ENTERPRISE REFERENCE OF EXPERTS AND SCIENTISTS (SPHERES)

The Division of Documentation of the National Institute of Science and Technology published the first volume of the Philippine Men of Science in 1964. It contained one hundred one bio-bibliographies of living men and women in the field of science and technology. It keeps track of our scientists and their contributions for the information and benefit of all. The compilation aims to provide interested users a useful and effective reference.

In 2012, the 24th volume of the Philippine Men of Science was uploaded online to make it more visible and accessible to users. Subsequently, the publication was renamed as the Philippine Men and Women of Science in 2013 to adopt a gender-sensitive title.

Today, the publication is given a new name – Specialized Philippine Enterprise Reference of Experts and Scientists (SPHERES).

The SPHERES brand introduces a new function with a new focus. When it comes to Filipino scientists and experts and their bio-bibliographic information, this compilation serves as a specialized reference for the public. Now with a gender-neutral emphasis and an inclusive sphere of influence, SPHERES is the name to remember.

Each volume of SPHERES consists of two issues annually.

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Organizational Affiliations

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Education

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Master of Science in Physics, University of the Philippines, Diliman, Quezon City 2014

Bachelor of Science in Applied Physics Instrumentation Physics, University of the Philippines, Diliman, Quezon City 2012

Fields of Specialization

Applied Physics

Papers Presented

2010 October 25-27 Abregana, T.J.T., Gonzalez, V.A.C., & Almoro, P.F. (2010 October 25-27). Effects of Illumination Wavelength and Diffuser Roughness Height on Speckle Formation and Phase. Retrieval, 28th Samahang Pisika ng Pilipinas, Antipolo City.

Publications

- 2017 Abregana, T.J., Hermosa, N.P., & Almoro, P.F., Digital micromirror device as amplitude diffuser for multiple-plane phase retrieval. Proc. SPIE 10330, Modeling Aspects in Optical Metrology VI, 103300G, 2017:doi: 10.1117/12.2270182.
- 2016 Abregana, T.J.T., & Almoro, P.F., Object localization using the statistical behavior of volume speckle fields. Optical Engineering, 2016, 55(12):121720.
Abregana, T.J., & Almoro, P.F., Multiple Diffusers as Agents of Intensity Diversity for Phase Retrieval. In: Imaging and Applied Optics 2016, OSA Technical Digest (online) (Optical Society of America), paper JW4A.56, 2016.
- 2015 Abregana, T.J., & Almoro, P., Effects of object spatial frequency on the performance of the multiple-plane phase retrieval method. Proceedings of the 33rd Physics Congress of the Samahang Pisika ng Pilipinas, Vigan City, 2015.
Almoro, P.F., & Abregana, T.J.T., Enhanced axial localization of rough objects using statistical fringe processing algorithm. Proc. SPIE 9660, SPECKLE 2015: VI International Conference on Speckle Metrology, 2015, 9660:doi: 10.1117/12.2196757.
- 2013 Abregana, T.J., & Almoro, P.F., Phase object localization using the statistical behavior of reconstructed wavefronts. Proc. SPIE 8883, ICPS 2013: International Conference on Photonics Solutions, 88830D, 2013:doi: 10.1117/12.2022106.
- 2010 Abregana, T.J.T., Gonzalez, V.A.C., & Almoro, P.F., Effects of Illumination Wavelength and Diffuser Roughness Height on Speckle Formation and Phase Retrieval. Proceedings of the 28th Physics Congress of the Samahang Pisika ng Pilipinas, Antipolo City, 2010.

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Organizational Affiliations

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Education

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Master of Science in Chemical Engineering, De La Salle University, Manila, Philippines 2005

Bachelor of Science in Chemical Engineering, University of Santo Tomas, Manila, Philippines 2001

Fields of Specialization

Risk Analysis

Bioenergy

Industrial Ecology

Association Membership

Member, Institution of Chemical Engineers (IChemE, UK)

Member, Society for Risk Analysis (SRA, USA)

Member, National Research Council of the Philippines (NRCP, PH)

Papers Presented

2014 May 30 - Benjamin, M.F.D., Tan, R.R., & Razon, L.F. (2014 May 30 - 2014 June 2). A methodology for criticality analysis in symbiotic bioenergy parks, 6th International Conference on Applied Energy - ICAE2014, Taipei, Taiwan.

Publications

2018 Andiappan, V., Benjamin, M.F.D., Tan, R.R., & Ng, D.K.S., An Integrated Framework to Address Criticality in Biomass Tri-Generation Systems via Redundancy Allocation. Process Integration and Optimization for Sustainability, 2018:<https://doi.org/10.1007/s41660-018-0055-0>.

Belmonte, B.A., Benjamin, M.F.D., & Tan, R.R., Bi-objective optimization of biochar-based carbon management networks. Journal of Cleaner Production, 2018, 188:911-920.

Benjamin, M.F.D., Multi-disruption Criticality Analysis in Bioenergy-based Eco-Industrial Parks via the P-graph Approach. Journal of Cleaner Production, 2018, 186:325-334.

2017 Benjamin, M.F.D., Cayamanda, C.D., Tan, R.R., & Razon, L.F., P-graph approach to criticality analysis in integrated bioenergy systems. Clean Technologies and Environmental Policy, 2017, 19(7):1841-1854.

- Benjamin, M.F.D., Tan, R.R., & Razon, L.F., Assessing the Sensitivity of Bioenergy Parks to Capacity Disruptions using Monte Carlo Simulation. *Chemical Engineering Transactions*, 2017, 56:475-480.
- Belmonte, B.A., Benjamin, M.F.D., & Tan, R.R., Biochar systems in the water-energy-food nexus: the emerging role of process systems engineering. *Current Opinion in Chemical Engineering*, 2017, 18:32-37.
- Andiappan, V., Benjamin, M.F.D., Tan, R.R., & Ng, D.K.S., Systematic Framework for Design of Biomass Energy Systems: Addressing Criticality via Redundancy Allocation. *Chemical Engineering Transactions*, 2017, 61:787-792.
- 2016
- Benjamin, M.F.D., Cayamanda, C.D., Belmonte, B.A., Tan, R.R., & Razon, L.F., A Risk-based Criticality Analysis in Bioenergy Parks using P-graph Method. *Chemical Engineering Transactions*, 2016, 52:1243-1248.
- Tan, R.R., Benjamin, M.F.D., Cayamanda, C.D., Aviso, K.B., & Razon, L.F., P-Graph Approach to Optimizing Crisis Operations in an Industrial Complex. *Industrial Engineering and Chemistry Research*, 2016, 55(12):3467-3477.
- Bacudio, L.R., Benjamin, M.F.D., Eusebio, R.C.P., Holaysan, S.A.K., Promentilla, M.A.B., Yu, K.D.S., & Aviso, K.B., Analyzing barriers to implementing industrial symbiosis networks using DEMATEL. *Sustainable Production and Consumption*, 2016, 7:57-65.
- Promentilla, M.A.B., Bacudio, L.R., Benjamin, M.F.D., Chiu, A.S.F., Yu, K.D.S., Tan, R.R., & Aviso, K.B., Problematique Approach to Analyse Barriers in Implementing Industrial Ecology in Philippine Industrial Parks. *Chemical Engineering Transactions*, 2016, 52:811-816.
- 2015
- Benjamin, M.F., Ubando, A., Razon, L., & Tan, R.R., Analyzing the Disruption Resilience of Microalgal Multi-functional Bioenergy Systems using Dynamic Inoperability Input-output Modeling. *Chemical Engineering Transactions*, 2015, 45:1579-1584.
- Benjamin, M.F.D., Ubando, A.T., Razon, L.F., & Tan, R.R., Analyzing the disruption resilience of bioenergy parks using dynamic inoperability input-output modeling. *Environment Systems and Decisions*, 2015, 35(3):351-362.
- Benjamin, M.F.D., Tan, R.R., & Razon, L.F., Probabilistic multi-disruption risk analysis in bioenergy parks via physical input-output modeling and analytic hierarchy process. *Sustainable Production and Consumption*, 2015:22-33.
- Benjamin, M.F.D., Tan, R.R., & Razon, L.F., A methodology for criticality analysis in integrated energy systems. *Clean Technologies and Environmental Policy*, 2015, 17(4):935-946.
- 2014
- Benjamin, M.F.D., Tan, R.R., & Razon, L.F., A Methodology for Criticality Analysis in Symbiotic Bioenergy Parks. *Energy Procedia*, 2014, 61:41-44.

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Education

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Master of Arts in Public Administration, University of the Philippines, Diliman, Quezon City 1993

Fields of Specialization

Political Science

Ethnicity

Secessionist Movement

Southeast Asian Politics

Conflict of Development

Comparative Politics

Governance

Decentralization

International Development

Development Studies

Employment

Trustee, Board of Trustees (Hounslow Borough of London), Citizens Advice, 2016 April-2017 July

Consultant, Asian Development Bank, 2015 November-2016 March

International Consultant, International Technology and Management Corporation, 2013 September-2015 March

Teaching Fellow (Southeast Asian Politics and Security), School of Oriental and African Studies (SOAS), University of London, 2007 September-2009 December

Associate Professor, De La Salle University, 2002 October-2013 November

Visiting Professor, Waseda University, 2002 August-2002 September

Senior Lecturer, University of the Philippines, 1986 June-1995 April

Honors / Awards

Republica Research Award for Social Sciences, Economics, Education, and Humanities (National and Regional Awardee), Commission on Higher Education Region 2007 June

Grant: Southeast Asian Studies Regional Exchange Program (SEASREP), Toyota Foundation and the Japan Foundation Asia Center 1999 January

Doctoral Fellowship, TODA Peace Institute (formerly TODA Institute for Global Peace and Policy Research) 1999 January

Publications

- 2018 Buendia, R., Bangsamoro Secessionism. Routledge Handbook of the Contemporary Philippines, 2018:439-447.
- Buendia, R.G., Book Review - "Asli Ü.Bali and HannaLerner (eds), Constitution Writing, Religion and Democracy. Cambridge: Cambridge University Press, 2017, v + 405 pp., £125 (hbk)". Nations and Nationalism, 2018, 24(4):1213-1214.
- 2017 Buendia, R.G., Prospects and Challenges of the Bangsamoro Basic Law under Duterte's Presidency: Resolution through Inclusive Governance. Manila, Philippines: Yuchengco Center, 2017.
- 2016 Buendia, R.G., Revisiting the ASEAN Political-Security Community Blueprint. Manila, Philippines: Yuchengco Center, 2016.
- Buendia, R.G., Recruitment and Movement of Professionals under the ASEAN Economic Community: Differentials in Adherence to the Blueprint. Manila, Philippines: Yuchengco Center, 2016.
- 2015 Buendia, R.G., The Politics of the Bangsamoro Basic Law. Manila, Philippines: Yuchengco Center, 2015.
- 2014 Buendia, R.G., Book Review - "Joseph Camilleri and Sven Schottmann (eds.) Culture, Religion and Conflict in Muslim Southeast Asia: Negotiating Tense Pluralisms Abingdon: Routledge, 2013, 196 pp. £85.00 hbk". Studies in Ethnicity and Nationalism, 2014, 14(3):533-532.
- Buendia, R.G., Book Review - "Regimes of social cohesion: societies and the crisis of globalization. Palgrave Macmillan 2014, ISBN: 978-1-137-45324-2, pp., 248, £24.99 pb.". Journal of Global Analysis, 2014:216-218.
- 2013 Buendia, R.G., Now it can be told: Shadow of memories and skeletons. Philippine Political Science Journal, 2013, 34(2):199-216.
- 2012 Buendia, R.G., The Ethnopolitics of Moro Self-Determination in the Philippines: So little, too late? Asia-Pacific Social Science Review, 2012, 12(1):45-64.
- 2011 Buendia, R.G., Book Review for "Jacques Bertrand and André Laliberté (eds) Multination States in Asia: Accommodation or Resistance Cambridge: Cambridge University Press, 2010, 330 pp. £19.99 pbk". Studies in Ethnicity and Nationalism, 2011, 11(3):579-581.
- 2010 Buendia, R.G., The State of Civil Society Organizations in Southeast Asia and Challenges to Reduce the Threats of Terrorism (Policy Brief). Philippine Institute for Peace, Violence and Terrorism Research, 2010:1-10.
- 2008 Buendia, R., Looking into the Future of Moro Self-Determination in the Philippines. Philippine Political Science Journal, 2008, 29(52):1-24.
- 2006 Buendia, R., Mendoza, L.C., Guiam, R., & Sambeli, L., Mapping and Analysis of Indigenous Governance Practices in the Philippines and Proposal for Establishing an Indicative Framework for Indigenous People's Governance: Towards a Broader and

- Inclusive Process of Governance in the Philippines. Bangkok: United Nations Development Programme, 2006.
- Buendia, R., Multiculturalism and Economic Cooperation in ASEAN. In: Yasui, A., (ed.), Economic Partnership in Asia-Pacific Region: Present Conditions and Prospects. Tokyo, Japan: Institute of International Relations, College of International Relations, Nihon University, 2006:173-198.
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- 2005
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- Buendia, R.G., Ethnopolitical Conflicts and the ASEAN: Looking Beyond State Sovereignty and Prospect of Regional Stability. *Asia-Pacific Social Science Review*, 2005, 5(2):28-44.
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- Buendia, R., The State-Moro Armed Conflict in the Philippines: Unresolved national question or question of governance? *Asian Journal of Political Science*, 2005, 13(1):109-138.
- 2004
- Buendia, R., & Osteria, T., Social Assessment of the Women's Health and Safe Motherhood Programme Package. World Bank Philippines, 2004.
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- 2003
- Buendia, R., & Gonzalez, J., The Philippines: The Continuing People Power. In: Funston, J., (ed.), *Government and Politics of Southeast Asia*. Singapore: Institute of Southeast Asian Studies, 2003:252-290.
- 2002
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- Buendia, R., Ethnicity and Sub-Nationalist Movements in the Philippines and Indonesia: Implications for Regional Security. Manila, Philippines: Yuchengco Center, 2002.
- 2001
- Buendia, R.G., The State, Ethnicity and Nationalism in the Philippines and Indonesia (A Re-Examination of Political Autonomy and Sub-national Independence Movements). National University of Singapore, 2001.
- 2000
- Buendia, R.G., Itneg (Tinggian) Justice and Conflict Resolution (Book Review). *Journal of Southeast Asian Studies*, 2000, 31(2):436-438.
- Buendia, R.G., The Institution of Peace Among Ethnic Kalingas: A Case Study of the Sumadel Tribe in Kalinga. In: Bernardo, A., & Ortigas, C., (eds.) *Building Peace: Essays on Psychology and the Culture of Peace*. Manila, Philippines: De La Salle University, 2000:97-112.
- 1999
- Buendia, R., & Tigno, J., Resurgence of Nationalism and Ethnicity in Post-Industrialism: Migration in Asian Context. *Philippine Political Science Journal*, 1999, 20(43):127-162.
- 1998
- Buendia, R., Ethnicity and Empowerment: Looking Beyond the Theory of 'Democracy' in Governance. *Philippine Journal of Public Administration*, 1998, 38(4):365-384.
- Buendia, R., & Gonzalez, J., Community Participation Really Essential to Program Effectiveness - Negative Answers from Three Philippine Cases. *International Journal of*

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- 1997 Buendia, R., The Comprehensive and Integrated Delivery of Social Services: An Appraisal of a Strategy in Social Development. In: Bautista, V., (ed.), A Reader in Philippine Social Development Administration. Manila, Philippines: University of the Philippines, 1997:287-320.
- 1995 Buendia, R.G., Philippine Social Development Perspectives: Do People Really Matter? Philippine Journal of Public Administration, 1995, 39(3):247-256.
 Buendia, R.G., The Comprehensive and Integrated Delivery of Social Services: An Appraisal of a Strategy in Social Development. Philippine Journal of Public Administration, 1995, 39(4):377-406.
- 1994 Buendia, R., Philippines. In: Mahmood, N., (ed.), Rethinking Political Development in Southeast Asia. Kuala Lumpur, Malaysia: University of Malaya Press, 1994:81-114.
- 1993 Buendia, R.G., Colonialism and Elitism in Philippine Political Development: Assessing the Roots of Underdevelopment. Philippine Journal of Public Administration, 1993, 37(2):141-174.
 Buendia, R., Ethnic Identity, Self-Determination and Human Rights: A Re-Examination of Majoritarian Democracy. Kasarinlan: Philippine Journal of Third World Studies, 1993, 8(4).
- 1992 Buendia, R.G., Ideologies in the Philippines: A Comparative Analysis. Political, 1992.
- 1989 Buendia, R.G., The Prospect of Federalism in the Philippines: A Challenge to Political Decentralization in a Unitary State. Philippine Journal of Public Administration, 1989, 33(2):121-141.
 Buendia, R., The Prospect of Federalism in the Philippines: A Challenge to Political Decentralization in a Unitary State. Philippine Journal of Public Administration, 1989, 33(2):121-141.
- 1987 Buendia, R., The Case of the Cordillera. Philippine Journal of Public Administration, 1987, 31(2):157-187.

Name **Reniel B. Cabral**

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Organizational Affiliations

Postdoctoral Researcher, Sustainable Fisheries Group, Bren School of Environmental Science and Management & Marine Science Institute, University of California, Santa Barbara, CA 93106, USA

Education

Doctor of Philosophy in Physics, National Institute of Physics, University of the Philippines, Diliman, Quezon City 1101 Philippines 2014

Master of Science in Physics, National Institute of Physics, University of the Philippines, Diliman, Quezon City 2011

Bachelor of Science in Physics (*cum laude*), National Institute of Physics, University of the Philippines, Diliman, Quezon City 1101 Philippines 2009

Fields of Specialization

Physics

Fisheries

Marine Ecology

Conservation Biology

Ecosystem Services

Marine Biology

Marine Biodiversity

Fisheries Management

Complex Systems

Marine Protected Areas

Employment

Reviewer, Nature Communications

Reviewer, Ecological Modelling

Reviewer, Biological Conservation

Reviewer, Fisheries Research

Reviewer, Society & Natural Resources

Reviewer, Journal of Environmental Management

Reviewer, Scientia Marina

Reviewer, Ecological Economics

Reviewer, Methods in Ecology and Evolution

Reviewer, PLoS ONE

Reviewer, Deep-Sea Research

Reviewer, Marine Policy

Reviewer, The Philippine Journal of Fisheries

Reviewer, Aquatic Conservation: Marine and Freshwater Ecosystems

Honors / Awards

Elvira O. Tan Award for best paper, natural resources and environment category, Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development, Department of Science and Technology 2018

Gawad Chanselor Natatanging Mag-aaral (Chancellor's Award - Outstanding Student), University of the Philippines

Most Outstanding PhD Physics Graduate, University of the Philippines

Most Outstanding PhD Graduate, College of Science, University of the Philippines

Dr. Edgardo Gomez Award for Best Dissertation Research, University of the Philippines

Most Outstanding MS Physics Graduate, University of the Philippines

Most Outstanding MS Graduate, College of Science, University of the Philippines

Scholarship, Philippine Council for Advanced Science and Technology Research and Development, Department of Science and Technology

Researches

Ongoing

POSEIDON

Fisheries Management

Papers Presented

2012 July 9-13 Muallil, R.N., Cabral, R.B., Mamauag, S.S., & Aliño, P.M. (2012 July 9-13). Status, trend and sustainability of small-scale fisheries in the Philippines, 12th International Coral Reef Symposium, Cairns, Australia.

Publications

2018 Bradley, D., Mayorga, J., McCauley, D.J., Cabral, R.B., Douglas, P., & Gaines, S.D., Leveraging satellite technology to create true shark sanctuaries. *Conservation Letters*, 2018:e12610.

Cabral, R.B., Gaines, S.D., Mayorga, J., Clemence, M., Lynham, J., Koeshendrajana, S., Muawanah, U., Nugroho, D., Anna, Z., Mira, Ghofar, A., Zulbainarni, N., & Costello, C., Reply to 'Achieving sustainable and equitable fisheries requires nuanced policies not silver bullets'. *Nature Ecology and Evolution*, 2018, 2:1335.

Burgess, M., Carrella, E., Drexler, M., Axtell, R.L., Bailey, R.M., Watson, J.R., Cabral, R.B., Clemence, M., Costello, C., Dorsett, C., Gaines, S.D., Klein, E.S., Koralus, P., Leonard, G., Levin, S., Richard Little, L., Lynham, J., Madsen, J.K., Merkl, A., Owashi, B., Saul, S.E., van Putten, I.E., & Wilcox, S., Opportunities for agent-based modeling in fisheries social science. *SocArXiv Papers*, 2018:<https://doi.org/10.31235/osf.io/gzhm5>.

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- 2012
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- 2011
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- 2010
 Cabral, R.B., Geronimo, R.C., Lim, M.T., & Aliño, P.M., Effect of variable fishing strategy on fisheries under changing effort and pressure: an agent-based model application. *Ecological Modelling*, 2010, 221(2):362-369.
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 Cabral, R.B., David, E.D., Jr., Geronimo, R.C., Lim, M.T., & Aliño, P.M., Coastal Assessment Tool and Planning Software (COASTPLAN) Tool Demonstration Guide. In: Marine Environment & Resources Foundation, Inc. Ecosystem-Based Management Toolkit for Philippine Coastal Resource Management. Marine Environment & Resources Foundation, Inc., Marine Science Institute, UP Diliman, Quezon City,
 Cabral, R.B., & Lim, M.T., Polarity-Driven Geometrical Cluster Growth Model of Budding Yeast. *International Journal of Modern Physics C*, 2010, 21(9):1169-1182.

Name Maria Ellenita De Castro

Sex Female

Fields of Specialization

Ecology

Botany

Ecophysiology

Fatty Acids

Environmental Physiology

Oils

Publications

- 2018 Ragasa, C.Y., Tan, M.C.S., De Castro, M.E., De los Reyes, M.M., Oyong, G.G., & Shen, C.-C., Sterols from *Lentinus tigrinus*. *Pharmacognosy Journal*, 2018, 10(6):1079-1081.
- 2017 Knothe, G., Razon, L.F., & de Castro, M.E.G., Methyl esters (biodiesel) from *Melanolepis multiglandulosa* (alim) seed oil and their properties. *Biofuels*, 2017, 9(4):doi:10.1080/17597269.2017.1309856.
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- Knothe, G., Razon, L.F., Madulid, D.A., Agoo, E.M.G., & de Castro, M.E.G., Methyl esters (biodiesel) from *Pachyrhizus erosus* seed oil. *Biofuels*, 2017, 9(4):449-454.
- Knothe, G., Razon, L.F., Madulid, D.A., Agoo, E.M.G., & de Castro, M.E.G., Fatty Acid Profiles of *Garuga floribunda*, *Ipomoea pes-caprae*, *Melanolepis multiglandulosa* and *Premna odorata* Seed Oils. *Journal of the American Oil Chemists' Society*, 2017, 94(2):333-338.
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- Ragasa, C.Y., Tan, M.C.S., de Castro, M.E.G., & Shen, C.-C., A Sterol from *Auricularia auricula-judae*. *Der Pharma Chemica*, 2016, 8(16):168-171.
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- 2015
 Knothe, G., de Castro, M.E.G., & Razon, L.F., Methyl Esters (Biodiesel) from and Fatty Acid Profile of *Gliricidia sepium* Seed Oil. Journal of the American Oil Chemists' Society, 2015, 92(5):769-775.
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- de Castro, M.E.G., & Dulay, R.M.R., Macrofungi in Multistorey Agroforestry Systems in Mt. Makiling Forest Reserve, Los Baños, Laguna, Philippines. Journal of Chemical, Biological and Physical Sciences, 2015, 5(2):1646-1655.

Name **Renato A. Dela Peña, Jr.**

Sex Male

Organizational Affiliations

Assistant Professor, Manila Tytana Colleges, Metropolitan Park, President Diosdado Macapagal Boulevard, Pasay, Metro Manila, Philippines

Education

Master of Science in Biology (Thesis Writing), Pampanga State Agricultural University, PAC, Magalang, Pampanga 2011, Philippines 2017

Master of Science in Teaching major in Chemistry, De La Salle University - Manila, 2401 Taft Avenue, Manila 1004, Philippines 2013

MEd School Leadership, De La Salle University - Manila, 2401 Taft Avenue, Manila 1004, Philippines 2001

BSE General Science, University of St. La Salle, La Salle Avenue, Bacolod City 6100, Negros Occidental, Philippines 1991

Fields of Specialization

Developmental Biology

Biochemistry

Microbiology

Biology

Physics

Education

Inorganic Chemistry

Organic Chemistry

Phytochemicals

Medicinal Plants

Flavonoids

Hepatology

Cell Biology

Biostatistics

Environmental Chemistry

Medicinal Chemistry

Educational Assessment

Science Education

Teacher Education

Employment

Assistant Professor IV - Chemistry and Life Sciences, Manila Tytana Colleges, 2017 June-Present

Assistant Professor IV - Natural Sciences, Manila Tytana Colleges, 2016 June-2017 March

Assistant Professor III - Chemistry and Life Sciences, Manila Tytana Colleges, 2014 June-2016 March

Part-Time College Faculty, College of San Benildo, 2010 June-2014 March

CAS Research Coordinator, Arellano University, 2009 June-2011 March

Assistant Professor, Science Department, Arellano University, Pasig, 2007 June-2012 January

Instructor, Social Sciences, Global City Innovative College, 2002 November-2007 October

Instructor III, College of Education, University of St. La Salle - Bacolod, 1991 June-2001 October

Honors / Awards

Scholarship, Science Education Institute, Department of Science and Technology, 2008 June

4th Placer, LET (Physical Science), 2002 August

Scholarship, Fund for Assistance to Private Education (FAPE) 1998 April

St. Benilde Student Leadership Award, De La Salle - College of St. Benilde 1991 March

Researches

Ongoing

Comparative Phytochemical Determination and Pharmacological Elucidation of Gynura Nepalensis D.C. Extracts Obtained Using Different Solvents

Phytochemical Quantification, Antioxidant Potentials and Antimicrobial Activities of Methanol and Decoated Leaf Extracts of Balakat Tree (*Ziziphus talanai* (Blanco) Merr.)

Correlation Between Reading Proficiency Level and Performance in Science Examination of Grade 9 students of Dela Paz National High School

Whole-cell Motion Studies on Paramecium

Research on Philippine Cinnamon

Chemical Formula Writing Difficulty among College and Senior High Students

Investigations on Arayat Pitogo (*Cycas riuminiana* Porte ex Regel)

Papers Presented

2017 February Raut, V., & Dela Peña, R., Jr. (2017 February 2017). Exploring the Economic Viability of 2017 Using SNAP Hydroponic System in Growing Selected Commercially Valuable Perennial Plants for Urban Settings, CAS Research Colloquium, Tanchoco Auditorium, Manila Central University.

2016 October Reyes, A.G., Dela Peña, R.A., Jr., Sula, L.F.I., & Banares, A. (2016 October 22).
22 Histoprotective potentials of ethanol leaf extract of balakat tree (*Ziziphus talanai* (blanco) merr.) against tetracycline-induced hepatotoxicity and reprotoxicity in male mice (*Mus musculus* L.), 8th Annual National Convention of the Philippine Society for Developmental Biology, Adamson University.

Publications

- 2018 Reyes, A.G., Miclat, A.E., Bañares, A.B., & Dela Peña, R.A., Lack of antibacterial activity of aqueous and ethanolic leaf extracts of *Ziziphus talanai* (Blanco) Merr.. Journal of Pharmaceutical Negative Results, 2018, 9(1):44-48.
Dela Peña, R.A., Jr., *Gynura nepalensis* DC: A Potential Wonder Medicinal Plant. The Philippine BIOTA, 2018, 48:1-6.
Dhayalan, A., Gracilla, D.E., Dela Peña, R.A., Jr., Malison, M.T., & Pangilinan, C.R., Phytochemical Constituents and Antimicrobial Activity of the Ethanol and Chloroform Crude Leaf Extracts of *Spathiphyllum cannifolium* (Dryand. ex Sims) Schott.. Journal of Pharmacy and Bio Allied Sciences, 2018, 10(1):15.
Kumar, A., Dela Peña, R.A., Jr., Malison, M.T., Punzalan, O.V., Jr., Pangilinan, C.R., & Gracilla, D.E., Cell-free Supernatant from *Exiguobacterium acetylicum* Isolated from Water Cabbage (*Pistia stratiotes*) Roots Inhibits *Bacillus subtilis* and *Escherichia coli*. Pharmacognosy Journal, 2018, 10(1):198-201.
Talens, C.U., Leus, M., & Dela Peña, R.A., Jr., Chemical Formula Writing Difficulties among Freshmen Students of General and Inorganic Chemistry. Proceedings of the 33rd Philippine Chemistry Congress, 2018.
- 2017 Maalim, O.N., Dela Peña, R.A., Jr., & Gracilla, D.E., Genomic Integrity of White Mice Bone Marrow Cells Treated with Antibiotics and Proven Antimicrobial Plants. International Journal of Pharmaceutical Technology and Biotechnology, 2017, 4(3):1-9.
Vighnesh, V.M., Malison, M.T., Dela Peña, R.A., Jr., Pangilinan, C.R., & Gracilla, D.E., Molecular Identification of Pathogen Antagonistic Gut-Lactic Acid Bacteria from *Periplaneta americana* using 16S rRNA Genes Sequencing. International Journal of Pharmaceutical Technology and Biotechnology, 2017, 4(2):1-9.
- 2016 Reyes, A.G., Dela Peña, R.A., Jr., Sula, L.F.I., & Bañares, A.B., Histoprotective potentials of ethanol leaf extract of balakat tree (*Ziziphus talanai* (blanco) merr.) against tetracycline-induced hepatotoxicity and reprotoxicity in male mice (*Mus musculus* L.) . International Journal of Pharmacology and Toxicology, 2016, 4(2):96-104.

Name **Rich Milton R. Dulay**

Sex Male

Organizational Affiliations

Faculty Researcher, Center for Tropical Mushroom Research and Development, Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines

Fields of Specialization

Fungal Biotechnology

Mushroom Cultivation

Mushroom Science

Researches

Completed

Optimal Submerged Cultural Conditions of Philippine Medicinal Mushrooms for Functional Fatty Acid Production

Publications

- 2018 Dulay, R.M.R., & Pamiloza, D.G., Proximate Composition and Bioactivities of Hairy Sawgill Mushroom, *Lentinusstrigosus* (BIL 1324) from the Philippines. International Journal of Biology, Pharmacy and Allied Sciences, 2018, 7(3):361-369.
Serrano, J.L.D., Dulay, R.M.R., & Waing, K.G.D., Biological Activities of Leaf Extracts Of *Morus* sp. S54 Variety. International Journal of Biology, Pharmacy and Allied Sciences, 2018, 7(3):370-377.
Canceran, M.L., Mariano, D.C., Moreno, L.K.V., Villamante, L.A., & Dulay, R.M., Identification and Bioactivity Profiling of Select Ferns From Mt. Mingan, Gabaldon, Nueva Ecija, Philippines. International Journal of Biology, Pharmacy and Allied Sciences, 2018, 7(8):1582-1590.
Palambergo, R.I., Dulay, R.M.R., & David, E.S., Phytochemicals and Teratogenic Effects of Water Extracts of Rind of Select Fruits. International Journal of Biology, Pharmacy and Allied Sciences, 2018, 7(5):938-952.
- 2017 Dulay, R.M.R., & Garcia, E.J.B., Optimization and Enriched Cultivation of Philippine (CLSU) Strain of *Lentinus strigosus* (BIL1324). Biocatalysis and Agricultural Biotechnology, 2017, 12:323-328.
Lin, J.-T., Hou, C.T., Dulay, R.M.R., Ray, K., & Chen, G.Q., Structures of hydroxy fatty acids as the constituents of triacylglycerols in Philippine wild edible mushroom, *Ganoderma lucidum*. Biocatalysis and Agricultural Biotechnology, 2017, 12:148-151.
Dulay, R.M.R., & Rivera, A.G.C., Mycelial Growth and Fruiting Body Production of Philippine (CLSU) Strain of *Polyporus grammacephalus* (BIL7749). Biocatalysis and Agricultural Biotechnology, 2017, 11:161-165.
Liwanag, J.M.G., Santos, E.E., Flores, F.R., Clemente, R.F., & Dulay, R.M.R., Species Listing of Macrofungi in Angat Watershed Reservation, Bulacan Province, Luzon Island, Philippines. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(5):1060-1068.

- Hou, C.T., Lin, J.-T., Dulay, R.M.R., & Ray, K., Identification of the Molecular Species of Acylglycerols Containing Hydroxy Fatty Acids in Wild Edible Mushroom *Ganoderma lucidum*. Biocatalysis and Agricultural Biotechnology, 2017, 10:411-419.
- Dulay, R.M.R., Rivera, A.G.C., & Garcia, E.J.B., Mycelial growth and basidiocarp production of wild hairy sawgill *Lentinus strigosus*, a new record of naturally occurring mushroom in the Philippines. Biocatalysis and Agricultural Biotechnology, 2017, 10:242-246.
- Dulay, R.M.R., Miranda, L.A., Malasaga, J.S., Kalaw, S.P., Reyes, R.G., & Hou, C.T., Antioxidant and Antibacterial Activities of Acetonitrile and Hexane Extracts of *Lentinus tigrinus* and *Pleurotus djamour*. Biocatalysis and Agricultural Biotechnology, 2017, 9:141-144.
- Hou, C.T., Lin, J.-T., Dulay, R.M.R., & Ray, K., Identification of Molecular Species of Acylglycerols of Philippine Wild Edible Mushroom, *Ganoderma lucidum*. Biocatalysis and Agricultural Biotechnology, 2017, 9:19-27.
- Dulay, R.M.R., Andres, S.M.B., Asuncion, A.F.C., Calalang, A.S., & Cumbe, A.P., Mycelial Biomass Production and Radical Scavenging Activity of *Lentinus Tigrinus* in Submerged Cultivation Using Selected Tropical Fruit Juice. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(11):2154-2161.
- Viloria, M.J.T., Dulay, R.M.R., & Wang, K.G.D., Biological activities of *Morus alba* L. leaves (Alfonso variety). International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(9):1629-1636.
- Trinidad, M.B., David, E.S., & Dulay, R.M., Assessment of toxic effects of *Lantana camara* L. extract using *Danio rerio* embryo assay. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(7):1425-1433.
- Dulay, R.M.R., Rivera, A.G.C., & De Castro, M.E.G., Wild Paddy Straw Mushroom (*Volvariella Volvacea*) Exhibit Toxic and Teratogenic Effects in Zebrafish (*Danio Rerio*) Embryo. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(5):910-917.
- Dulay, R.M.R., & De Castro, M.E.G., Embryo-Toxic and Teratogenic Activities of Lyophilized Water Extracts of *Persea Americana* Mill. and *Syzygium Cumini* (L.) Skeels Leaves in *Danio Rerio*. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(3):504-513.
- Dulay, R.M.R., Harada, H.L.M., Santos, M.M.R., Miguel, C.M., & De Castro, M.E.G., Mycelial Growth and Fruiting Body Performance of Three Philippine Edible Mushrooms on Vitamin A-Supplemented Media. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(2):308-315.
- Dulay, R.M.R., & Damaso, E.J., Jr., The First Report on the Successful Rescue and Domestication of Philippine Wild Mushroom *Oudemansiella canarii* (Bil 9137). International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(12):2359-2369.
- Morales, N.D., Jr., & Dulay, R.M.R., Anti-Thrombotic Activity of *Capsicum frutescens* L. Fruit Extracts in vitro. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(12):2387-2392.
- Dulay, R.M.R., & Maglasang, C.C., Species Listing of Naturally Occurring Mushrooms in Agro-Ecosystem of Barangay Bambanaba, Cuyapo, Nueva Ecija, Philippines. International Journal of Biology, Pharmacy and Allied Sciences, 2017, 6(8):1459-1472.
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Publications

- 2017 Yasuhara, M., Iwatani, H., Hunt, G., Okahashi, H., Kase, T., Hayashi, H., Irizuki, T., Aguilar, Y.M., Fernando, A.G.S., & Renema, W., Cenozoic dynamics of shallow-marine biodiversity in the Western Pacific. Journal of Biogeography, 2017, 44(3):567-578.

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Environmental Biology (Freshwater Ecology)

Researches

Ongoing

Philippine Cave Freshwater Fishes: Threats, Challenges and Opportunities

Papers Presented

2018 May 1-5 Labatos, B.V., Jr. (2018 May 1-5). Philippine Cave Freshwater Fishes: Threats, Challenges and Opportunities, 18th Philippine Speleological Society National Cave Congress, Legazpi City Convention Center, Legaspi City, Albay, Philippines.

2017 July 23- 29 Malabriga, P.L., Jr., Pampolina, N.M., Balatibat, J.B., Tinio, C.E., Aguilon, D.J.D., Tingzon, K., Labatos, B.V., Jr., Umali, A.G.A., & Tobias, A.B. (2017 July 23-29). Ecological Assessment and Monitoring of Biodiversity in Terrestrial and Aquatic Ecosystems in Didipio Gold-Copper Project, XIX International Botanical Congress.

2015 Panahon, M.L., & Labatos, B.V., Jr. (2015). Ecological Assessment of the Siganid Fishery of Baruyan River and Caluangan Lake in Calapan City, Oriental Mindoro, Philippines as Affected by Human and Environmental Impacts, 24th Annual Philippine Biodiversity Symposium, University of Eastern Philippines Catarman, Northern Samar.

2013 February Bailly, N., Labatos, B.V., Jr., Emily, C., & Armi, T. (2013 February). An assessment of the Systematic Position of Freshwater Fishes Originally described from the Philippines: Implications to Biodiversity Assessment in Asia, Asian Fish Biodiversity Conference, Gurney Resort Hotel & Residences, Penang, Malaysia.

2011 May 16- 18 Labatos, B.V., JR., Torres, A.G., & Bailly, N. (2011 May 16-18). Freshwater Fishes Originally Described from the Philippines, 2011 Annual Scientific Conference, "Current Trends in Systematic Biology - Applications to Teaching, Research and Extension". Association of Systematic Biologists of the Philippines. Thomas Aquinas Research Complex, University of Santo Tomas, Manila, Philippines.

- 2009 Paller, V.G.V., Labatos, B.V., Jr., Lontoc, B.M., Padalhin, A.R., Matalog, O.E., & Ocampo, November 4-6 P.P. (2009 November 4-6). Ichtyofaunal Survey of Pansipit River and Talisay Falls, Batangas, Philippines, 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines.
- 2009 Cañete, J.A.O., Lontoc, B.M., Matalog, O.E., Labatos, B.V., Jr., Padalhin, A.R., & Ocampo, November 4-6 P.P. (2009 November 4-6). Induced Spawning of Tiger Perch, *Leiopotherapon plumbeus* Kner, Using Human Chorionic Gonadotropin (HCG), 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines.
- 2009 Padalhin, A.R., Lontoc, B.M., Matalog, O.E., Labatos, B.V., Jr., & Ocampo, P.P. (2009 November 4-6 November 4-6). Embryogenesis of Ayungin (*Leiopotherapon plumbeus* Kner), 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines.
- 2009 Padalhin, A.R., Sales, A., Corpuz, M.N., Lontoc, B.M., Matalog, O.E., Labatos, B.V., Jr., & Ocampo, P.P. (2009 November 4-6). Evaluation of Some Biological Parameters of an Unidentified Goby Fish Collected from Malagaylay, Quezon Province, 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines.
- 2008 Paller, V.G.V., Labatos, B.V., Jr., Lontoc, B.M., Matalog, O.E., Padalhin, A.R., & Ocampo, December 2-4 P.P. (2008 December 2-4). Survey of Diminutive Freshwater Fishes in Watersheds of Makiling Forest Reserve and Tadlac Lake, Laguna, Philippines, 12th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Roadshow. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Southern Luzon State University, Lucban, Quezon, Philippines.

Publications

- 2017 Labatos, B.V., Jr., Fishes of Calapan River, City of Calapan, Oriental Mindoro, Philippines. National Museum of the Philippines Journal of Natural History, 2017, 2(1):1-10.
Sy, E.Y., & Labatos, B.V., Jr., Geographic distribution: *Ophiophagus hannah* (King Cobra): Philippines, Luzon Island: Nueva Vizcaya Province. Herpetological Review, 2017, 48(1):130.
- 2014 Labatos, B.V., Jr., & Briones, N.D., Freshwater Fishes of Tikub Lake, Tiaong, Quezon, Philippines. Asian Journal of Biodiversity, 2014, 5(1):41-53.
- 2012 Labatos, B.V., Jr., Fish Taxonomic Survey of Calapan River. City of Calapan and BioNetwork Consultants. Calapan City, Philippines, 2012:60p.
- 2011 Paller, V.G.V., Labatos, B.V., Jr., Lontoc, B.M., Matalog, O.E., & Ocampo, P.P., Freshwater fish fauna in watersheds of Mt. Makiling forest reserve, Laguna, Philippines. Philippine Journal of Science, 2011, 140(2):195-206.
Labatos, B.V., Jr., Naujan Lake National Park Site Assessment and Profile Updating. Mindoro Biodiversity Conservation Foundation Inc., 2011.
UPLB Limnological Research Station, Freshwater Fishes of Southern Luzon, Philippines. University of the Philippines Los Baños, College, Laguna, 2011:91p.

- Labatos, B.V., Jr., Scoping Survey for Tikub Lake Watershed Area. Municipality of Tiaong and BioNetwork Consultants. Tiaong, Quezon, Philippines, 2011:63p.
- Labatos, B.V., Jr., Torres, A.G., & Bailly, N., Freshwater Fishes Originally Described from the Philippines (Abstract). Proceedings and Book of Abstracts. 2011 Annual Scientific Conference, "Current Trends in Systematic Biology - Applications to Teaching, Research and Extension". Association of Systematic Biologists of the Philippines, University of Santo Tomas, 2011:21-22.
- 2009
- Paller, V.G.V., Labatos, B.V., Jr., Lontoc, B.M., Padalhin, A.R., Matalog, O.E., & Ocampo, P.P., Ichtyofaunal Survey of Pansipit River and Talisay Falls, Batangas, Philippines (Abstract). Proceedings and Abstracts. 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines, 2009.
- Cañete, J.A.O., Lontoc, B.M., Matalog, O.E., Labatos, B.V., Jr., Padalhin, A.R., & Ocampo, P.P., Induced Spawning of Tiger Perch, *Leiopotherapon plumbeus* Kner, Using Human Chorionic Gonadotropin (HCG) (Abstract). Proceedings and Abstracts. 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines, 2009.
- Padalhin, A.R., Lontoc, B.M., Matalog, O.E., Labatos, B.V., Jr., & Ocampo, P.P., Embryogenesis of Ayungin (*Leiopotherapon plumbeus* Kner) (Abstract). Proceedings and Abstracts. 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines, 2009.
- Padalhin, A.R., Sales, A., Corpuz, M.N., Lontoc, B.M., Matalog, O.E., Labatos, B.V., Jr., & Ocampo, P.P., Evaluation of Some Biological Parameters of an Unidentified Goby Fish Collected from Malagaylay, Quezon Province (Abstract). Proceedings and Abstracts. 13th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Road Show. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Partido State University, Goa, Camarines Sur, Philippines, 2009.
- 2008
- Paller, V.G.V., Labatos, B.V., Jr., Lontoc, B.M., Matalog, O.E., Padalhin, A.R., & Ocampo, P.P., Survey of Diminutive Freshwater Fishes in Watersheds of Makiling Forest Reserve and Tadlac Lake, Laguna, Philippines (Abstract). Proceedings and Abstracts. 12th Southern Luzon Zonal R&D Symposium cum Aquatic Technology Roadshow. PCAMRD Southern Luzon Zonal Center for Aquatic and Marine R&D, Southern Luzon State University, Lucban, Quezon, Philippines, 2008.

Name **Marlon N. Manalo**

Sex Male

Organizational Affiliations

Associate Professor, Institute of Chemistry, University of the Philippines Los Baños,

Fields of Specialization

Chemistry

Computational Chemistry

Molecular Modeling

Quantum Chemistry

Physical Chemistry

Papers Presented

- 2013 October 29-30 De Leon, R.C., Torio, M.A.O., Manalo, M.N., & Aguda, R.M. (. Isolation, Purification and Characterization of the Major Storage Protein In Cowpea (*Vigna unguiculata*) Seed with Bioactive Peptides Exhibiting Anti-Angiotensin I-Converting Enzyme Activity, 42nd Annual Convention of the Kapisanang Kimika ng Pilipinas - Southern Tagalog Chapter.
- 2012 December Abogado, R.P., Lit, M.C., Abrera, A.T., & Manalo, M.N. (2012 December). Antifeedant activity of dalanghita (*Citrus reticulata* Blanco) seed extract against Asian cornborer (*Ostrinia furnacalis* Gueneé) larvae, 5th UPLB-CAS Student-Faculty Research Conference, University of the Philippines Los Baños, Laguna, Philippines.

Publications

- 2015 Abrera, A.T., Abogado, R.P., Caasi-Lit, M.T., & Manalo, M.N., Insect anti-feedant and growth-inhibitory activities of a limonoid from seeds of dalanghita (*Citrus reticulata* Blanco cv. Ladu) against larvae of the Asian corn borer [*Ostrinia furnacalis* (Guenee)]. Philippine Agricultural Scientist, 2015, 98(1):7-14.
- 2014 de Leon, R.C., Torio, M.A.O., Manalo, M.N., & Aguda, R.M., A Dipeptide with Anti-hypertensive Activity from Cowpea (*Vigna unguiculata*) Seed 7S Globulin. Transactions of the National Academy of Science and Technology, 2014.
- 2013 De Leon, R.C., Torio, M.A.O., Manalo, M.N., & Aguda, R.M., Isolation, Purification and Characterization of the Major Storage Protein In Cowpea (*Vigna unguiculata*) Seed with Bioactive Peptides Exhibiting Anti-Angiotensin I-Converting Enzyme Activity. 42nd Annual Convention of the Kapisanang Kimika ng Pilipinas - Southern Tagalog Chapter, 2013:26.
- 2012 Perrin, C.L., Flach, A., & Manalo, M.N., Decomposition of Malonic Anhydrides. Journal of the American Chemical Society, 2012, 134(23):9698-9707.
Abogado, R.P., Lit, M.C., Abrera, A.T., & Manalo, M.N., Antifeedant activity of dalanghita (*Citrus reticulata* Blanco) seed extract against Asian cornborer (*Ostrinia furnacalis* Gueneé) larvae. 5th UPLB-CAS Student-Faculty Research Conference, University of the Philippines Los Baños, Laguna, Philippines, 2012.

- 2009 Abildgaard, J., Hansen, P.E., Manalo, M.N., & LiWang, A., Deuterium isotope effects on ^{15}N backbone chemical shifts in proteins. *Journal of Biomolecular NMR*, 2009, 44(3):119-126.
- 2007 Manalo, M.N., Pérez, L.M., & LiWang, A., Hydrogen-Bonding and pi-pi Base-Stacking Interactions Are Coupled in DNA, As Suggested by Calculated and Experimental Trans-Hbond Deuterium Isotope Shifts. *Journal of the American Chemical Society*, 2007, 129(37):11298-11299.
- 2006 Manalo, M.N., Sensitivity of DNA Hydrogen Bonds to Hydration, as Gauged by $^1J_{\text{NH}}$ Measurements. 62nd Southwest Regional Meeting, Houston, Texas, USA, 2006.
- Kim, Y.-I., Manalo, M.N., Peréz, L.M., & LiWang, A., Computational and empirical trans-hydrogen bond deuterium isotope shifts suggest that N1-N3 A: U hydrogen bonds of RNA are shorter than those of A: T hydrogen bonds of DNA. *Journal of Biomolecular NMR*, 2006, 34(4):229-236.
- 2005 Manalo, M.N., Kong, X., & LiWang, A., J_{NH} Values Show that N1 ··· N3 Hydrogen Bonds Are Stronger in dsRNA A:U than dsDNA A:T Base Pairs. *Journal of the American Chemical Society*, 2005, 127(51):17974-17975.
- 2004 Manalo, M.N., & de Dios, A.C., CSGT-DFT calculation of ^{13}C and ^{15}N NMR shielding of the backbone amide group, $^{13}\text{C}^{\alpha}$, and $^{13}\text{C}^{\beta}$ in gamma-Conotoxin GVIA. *Journal of Molecular Structure: THEOCHEM*, 2004, 675(1-3):1-8.
- 2003 Manalo, M.N., Solvent Effects on Chemical Shielding: CSGT-DFT Studies Using the Polarizable Continuum Model. Georgetown University, 2003.
- 2002 Manalo, M.N., & de Dios, A.C., An *ab initio* study of solvent polarity and hydrogen bonding effects on the nitrogen NMR shieldings of N,N-dimethylacetamidine. *Magnetic Resonance in Chemistry*, 2002, 40(12):781-785.
- 2000 Rich, J.E., Manalo, M.N., & de Dios, A.C., ^{13}C Chemical Shielding Tensors in Ampicillin and Penicillin-V: A Theoretical Study. *Journal of Physical Chemistry*, 2000, 104(24):5837-5842.
- Manalo, M.N., de Dios, A.C., & Cammi, R., Solvent Effects on ^{15}N NMR Shielding of 1,2,4,5-Tetrazine and Isomeric Tetrazoles: Continuous Set Gauge Transformation Calculation Using the Polarizable Continuum Model. *Journal of Physical Chemistry*, 2000, 104(42):9600-9604.

Name **Virginia Ramos Ocampo**

Sex Female

Organizational Affiliations

Professor of Entomology, University of the Philippines Los Baños, College, 4031 Laguna

Fields of Specialization

Agriculture

Animal Breeding

Integrated pest management

Entomology

Insect Rearing

Insecticide Resistance

Insect Physiology

Pesticide Toxicity

Agricultural Chemicals

Biopesticides

Insect Biochemistry

Insect pest management

Insecticide Toxicology

Mycology

Employment

Professor of Entomology, College of Agriculture, University of the Philippines Los Baños, 1976-Present

Association Membership

Regular Member, National Research Council of the Philippines

Researches

Completed

Dengue Vector Surveillance in Selected Public Schools in the National Capital Region

Acute Undifferentiated Fever As An Early Warning Tool For Dengue

Development of School-Based Critical Threshold Indices for *Aedes aegypti*

Papers Presented

2000 May 3-6 Ocampo, P.P., Lauan, M.C.B., Ocampo, V.R., & Lontoc, B.M. (2000 May 3-6). Effects the gamma radiation has on female corn earworm, *Helicoverpa armigera* Hubner, 31st Pest Management Council of the Philippines (PMCP) Convention. Hotel Supreme, Baguio City, Philippines.

- 1998 Ocampo, V.R., & De Leon, J.B. (1998). The effects of radiation on the biology and reproduction of *Helicoverpa armigera* Lepidoptera Noctuidae, Evaluation of Lepidoptera population suppression by radiation-induces sterility, Penang, Malaysia.
- 1979 January Medina, J.R., Ocampo, V.R., Magallana, E.D., & Sanchez, F.F., Sr. (1979 January). Pesticides in Corn and Grain Legumes Production in the Philippines, Sensible Use of Pesticides. Food and Fertilizer Technology Center for Asia and the Pacific Seminar.

Publications

- 2018 Javier, A.M.V., Ocampo, V.R., Ceballo, F.A., & Javier, P.A., Insecticidal Activities of the Essential Oils from Different Plants Against the Cabbage Worm, *Crocidiolomia pavonana* Fabricius (Lepidoptera: Crambidae). Philippine Agricultural Scientist, 2018, 101(2):158-166.
- Javier, A.M.V., Ocampo, V.R., Ceballo, F.A., & Javier, P.A., Insecticidal Activity of Crude Ethanolic Extracts of Five Philippine Plants against Cabbage Worm, *Crocidiolomia pavonana* Fabricius (Lepidoptera: Crambidae). Philippine Journal of Science, 2018, 147(3):513-521.
- 2017 Javier, A.M.V., Ocampo, V.R., Ceballo, F.A., & Javier, P.A., Insecticidal Activity of Selected Essential Oil Extracts Against Common Cutworm, *Spodoptera litura* Fabricius (Lepidoptera: Noctuidae). Philippine Journal of Science, 2017, 146(3):247-256.
- 2016 Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Identification of Potential Entomopathogenic Fungi of *Tetranychus kanzawai* Kishida (Tetranychidae: Acarina) Using ITS-5.8s rDNA Region As Molecular marker. Agrivita, 2016, 38(2):186-192.
- Javier, A.M.V., Ocampo, V.R., Ceballo, F.A., & Javier, P.A., Insecticidal Activity of Four Essential Oils against Diamondback moth, *Plutella xylostella* Linnaeus (Lepidoptera:Pyralidae). Philippine Agricultural Scientist, 2016, 99(2):156-163.
- Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Pathogenicity of three entomopathogenic fungi, *Metarrhizium anisopliae*, *Beauveria bassiana*, and *Paecilomyces lilacinus* to *Tetranychus kanzawai* infesting papaya seedlings. Arthropods, 2016, 5(3):109-113.
- 2015 Soe, M.M., & Ocampo, V.R., Parasitization of *Bakera nigrobilineata* (Melichar) (Hemiptera:Cicadellidae) by an Unidentified Strepsipteran. Philippine Entomologist, 2015, 29(2):214-217.
- Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Role of new novel entomopathogenic fungi *Paecilomyces lilacinus* to mortality and infection process of *Tetranychus kanzawai* (Kishida) (Tetranychidae:Acarina). International Journal of Biosciences, 2015, 7(3):16-23.
- Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Infection Process of Entomopathogenic Fungi *Beauveria Bassiana* in *Tetranychus kanzawai* (Kishida) (Tetranychidae:Acarina). 2015, 2015, 4(3):90-97.
- 2014 Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Entomopathogenic characterization of *Beauveria bassiana* fungi against *Tetranychus kanzawai* (Kishida) (Tetranychidae: Acarina) spider mite by its region. Thai Journal of Agricultural Science, 2014, 47(1):13-21.
- Soe, M.M., Ocampo, V.R., Caoili, B.L., Javier, P.A., & Rebancos, C.M., Superparasitism and Multiparasitism of the Mango Leafhoppers by *Halictophagus fulmeki* (Hofenader) and *Callipharixenos philippinus* Kathirithamby and McMahon (Strepsiptera). Philippine Entomologist, 2014, 28(2):121-139.
- 2013 Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Transmission effects of entomopathogenic fungi on population of *Tetranychus kanzawai* (Kishida) (Tetranychidae: Acarina). Arthropods, 2013, 2(1):36-41.
- Sanjaya, Y., Ocampo, V.R., Caoili, B.L., Infection process of entomopathogenic fungi

- Metarhizium anisopliae* in the *Tetranychus kanzawai* (Kishida) (Tetranychidae: Acarina). Agrivita, 2013, 35(1):64-72.
- Sanjaya, Y., Ocampo, V.R., & Caoili, B.L., Selection of entomopathogenic fungi against the red spider mite *Tetranychus kanzawai* (Kishida) (Tetranychidae: Acarina). Arthropods, 2013, 2(4):208-215.
- De Las Llagas, L.A., Bersales, L.G., Bertuso, A.G., Mistica, M.S., Ocampo, V.R., Samaniego, J.B., Magsino, E.A., & Alzona, F.D., Mosquito Larvicidal Trap (MLT) as Surveillance and Control Tool for *Aedes* Mosquitoes. Southeast Asian Journal of Tropical Medicine and Public Health, 2013, 47(4):701-711.
- 2012 Ubaub, L.T., & Ocampo, V.R., Field biology, setal map and adult genitalia of the citrus rind borer *Prays endolemma* Diakonoff (Lepidoptera: Yponomeutidae) on Pummelo *Citrus maxima* (Burm) Merr. (Rutaceae) in Region XI, Philippines. Philippine Entomologist, 2012, 26(1):65-92.
- Ubaub, L.T., & Ocampo, V.R., Pattern of Infestation and characteristic damage of the citrus rind borer *Prays endolemma* Diakonoff (Lepidoptera: Yponomeutidae) on Pummelo *Citrus maxima* (Burm) Merr. (Rutaceae) in Region XI, Philippines. Philippine Entomologist, 2012, 26(2):137-155.
- Kathirithamby, J., McMahon, D.P., Anober-Lantican, G.M., & Ocampo, V.R., An unusual occurrence of multiparasitism by two genera of Strepsiptera (Insecta) in a mango leafhopper *Idioscopus clypealis* (Lethierry) (Hemiptera: Cicadellidae) in the Philippines. Zootaxa, 2012, 3268:16-28.
- 2011 Belen, J.M., Ocampo, V.R., & Caoili, B.L., Pathogenicity and Biological Characterization of Entomopathogenic Fungi Isolated from Corn Earworm, *Helicoverpa armigera* (Hubner) (Lepidoptera: Noctuidae). Philippine Entomologist, 2011, 25(1):48-63.
- 2010 Sarmiento, G.M., & Ocampo, V.R., Variability in response to insecticides of field populations of diamondback moth, *Plutella xylostella* (Linnaeus), in the Philippines. Philippine Entomologist, 2010, 24(1):39-76.
- 2005 Patricio, M.G., Ocampo, V.R., & Cadapan, E.P., Biology and Abundance of the Striped Flea Beetle *Phyllotreta striolata* (F.) (Coleoptera: Chrysomelidae), on Pak-Choi (*Brassica campestris* var. *chinensis* L.) and Management Options Against the insect pest. Philippine Entomologist, 2005, 19(1):49-77.
- Alouw, J.C., Morallo-Rejesus, B., & Ocampo, V.R., Biology of the Coconut Spike Moth *Tirathaba fructivora* (Meyr) (Lepidoptera: Pyralidae). Philippine Entomologist, 2005, 19(1):84-93.
- Alouw, J.C., Morallo-Rejesus, B., & Ocampo, V.R., Biology of the Spike Moth *Tiratrabia fructivora* (Meyr) (Lepidoptera: Pyralidae). Philippine Entomologist, 2005, 19(1):84-93.
- 2004 Lauan, M.C.B., Ocampo, P.P., & Ocampo, V.R., Ovarian changes induced by gamma radiation treatments on corn earworm, *Helicoverpa armigera* Hubner (Lepidoptera:Noctuidae). Philippine Entomologist, 2004, 18(1):44-54.
- Ilagan, K., Laude, R.P., Ocampo, V.R., & Villamael, L.M., Cytogenetics of the mango leafhopper *Idioscopus clypealis* Homoptera:Cicadellidae. Philippine Agricultural Scientist, 2004, 87(4):468-472.
- 2002 Ramos Ocampo, V., & de Leon, J.B., The effects of Radiation on the Biology and Reproduction of *Helicoverpa armigera* (Lepidoptera:Noctuidae). Evaluation of Lepidoptera Population Suppression by Radiation-Induced Sterility, 2002:29-36.
- 2001 Ocampo, V.R., Effect of a Substerilizing Dose of Radiation on the Mating Competitiveness of Male and on the Mating Propensity of Female *Helicoverpa armigera* (Lepidoptera: Noctuidae). Florida Entomologist, 2001, 84(2):194-198.

- 2000 Ocampo, P.P., Lauan, M.C.B., Ocampo, V.R., & Lontoc, B.M., Effects the gamma radiation has on female corn earworm, *Helicoverpa armigera* Hubner. Proceedings of the 31st Pest Management Council of the Philippines (PMCP) Convention. Hotel Supreme, Baguio City, Philippines, 2000.
- Rimas, M.F.M., Ocampo, P.P., & Ocampo, V.R., Effects of gamma radiation on the testicular cells of corn earworm (*Helicoverpa armigera* (Hubner)). Philippine Entomologist, 2000, 14(2):159-174.
- Ocampo, V.R., Añober, G.M., & Rejesus, R.S., A new Halictophagid species parasitizing mango leafhopper *Idioscopus clypealis* (Lethierry) (Hemiptera:Cicadellidae) in South Luzon, Philippines. Philippine Entomologist, 2000, 14(2):185-187.
- Ocampo, V.R., Tabur, M.T., Fulgencio, R.D., Lim, A.C., & Orozco, F.D., Diet development and mass rearing of the corn earworm, *Helicoverpa armigera* (Hubner) (Lepidoptera: Noctuidae) in the Philippines. Philippine Agricultural Scientist, 2000, 83(3):282-291.
- 1999 Ocampo, V.R., & de Leon-Facundo, J.B., A glass vial technique for monitoring insecticide resistance in *Helicoverpa armigera* (Hbn) in the Philippines. Philippine Entomologist, 1999, 13(2):169-171.
- 1998 Ocampo, V.R., Magallona, E.D., & Tejada, A.W., Pesticide residues in the Philippines. In book: Teng, P.S., & Heong, K.L., (eds.), Pesticide Management and Integrated Pest Management in Southeast Asia. Chapter: 44. Publisher: Consortium for International Crop Protection, 4321 Hartwick Road, Suite 404, College Park MD 20740, USA, 473 p, 1998.
- Cueno, M.E., Laude, R.P., & Ocampo, V.R., Cytogenetics of corn earworm *Helicoverpa armigera* Hbn. Philippine Agricultural Scientist, 1998, 81(1&2):89-94.
- 1997 Bella, A.P., Jerusalem, G.L., Barrion, A.A., Ocampo, V.R., & de Leon, J.B., Gamma ray induction of translocations in the corn earworm *Helicoverpa armigera* (HBN) (Lepidoptera: Noctuidae). Philippine Entomologist, 1997, 11(2):109-117.
- 1994 Ocampo, V.R., Botanical insecticide research and development in relation to safe use. Philippine Agricultural Scientist, 1994, 77(1):45-64.
- 1993 Florentino, C., Ocampo, P.P., & Ocampo, V.R., Effects of lagundi (*Vitex negundo* L.) crude extracts on some reproductive parameters of adult male albino rats. Annual Scientific Meeting of the Pest Management Council of the Philippines, Cebu City, Philippines, 1993.
- Rejesus, B.M., Haini, H.A., Ocampo, V.R., Dayrit, F.M., & Quintana, E.G., Insecticidal actions of several Philippine plants with emphasis on *Vitex negundo* L.. Philippine Agriculturist, 1993, 76(4):355-371.
- 1992 Chio, J.T., Dayrit, F.M., Ocampo, P.P., & Ocampo, V.R., A study on the environmental impact of detergents, III: Toxicity of Alkylbenzene Sulfonates (ABS) and Coconut Fatty Alcohol Sulfates Towards Fish and Rats. Philippine Journal of Science, 1992:39-50.
- 1989 Manimtim, J.B., & Ocampo, V.R., Efficacy of insecticides against pests of the medicinal plant *Vitex negundo* L.. Pest Control Council of the Philippines. Baguio City, Philippines, 1989.
- Anaez, L.C., Tejada, A.J., & Ocampo, V.R., Fate of pesticide residues on lagundi (*Vitex negundo* L.). Pest Control Council of the Philippines, Baguio City, Philippines, 1989.
- 1988 Ramos-Ocampo, V.E., & Hsia, M.T.S., Mutagenicity and DNA damaging activity of calamus oil, asarone isomers and dimethoxypropenylbenzene analogues in *Salmonella typhimurium* mutants and isolated rat hepatocytes. Philippine Entomologist, 1988, 7(3):275-291.

- 1987 Ramos-Ocampo, V.E., & Hsia, M.T.S., Effects of acute treatments of calamus oil, beta-asarone, and dimethoxypropenylbenzene analogues in laboratory rats. Philippine Entomologist, 1987, 7(2):129-158.
- 1986 Ramos-Ocampo, V.E., & Hsia, M.T.S., Toxicity and Chemosterilant activity of calamus oil and asarone analogues to the kelp fly *Coelopa frigida* (F). Philippine Entomologist, 1986, 6(5):485-494.
- Ramos-Ocampo, V.E., & Hsia, M.T.S., The influence of calamus oil and asarone analogues on the reproduction of *Oncopeltus fasciatus* (Dallas). Philippine Entomologist, 1986, 6(5):495-515.
- 1980 Ramos, V.E., & Morallo-Rejesus, B., Effects of natural and semi-synthetic diets on the growth and development of the corn earworm *Helicoverpa armigera* (Hubner).. Philippine Entomologist, 1980, 4(5):383-387.
- 1979 Ramos, V.E., & Morallo-Rejesus, B., The Occurrence of *Helicoverpa assulta* (Guenee) in the Philippines. Philippine Entomologist, 1979, 4(3):141-148.
- Medina, J.R., Ocampo, V.R., Magallona, E.D., & Sanchez, F.F., Pesticides in corn and grain-legume production in the Philippines. In book: Tetangco, M.H., (ed.), Sensible Use of Pesticides. Chapter: 6, Publisher: Food and Fertilizer Technology Center for the Asian and Pacific Region (ASPAC-FFTC), Taipei, Taiwan, Republic of China, 250 p, 1979.
- 1976 Ramos, V.E., & Morallo-Rejesus, B., Effects of Nutrition on larval coloration of *Helicoverpa armigera* Hubner. Philippine Entomologist, 1976, 3(3-4):201-224.

Name Pablo P. Ocampo

Sex Male

Organizational Affiliations

Station Manager, University of the Philippines Los Baños Limnological Research Station,

Fields of Specialization

Pest Management

Zoology

Sociobiology

Vertebrate Biology

Vertebrate Pest Management

Researches

Ongoing

Captive breeding of the native and endemic fish species

Papers Presented

- 2010 November 5 Coronado, A.S., Camacho, M.V., Lontoc, B., & Ocampo, P. (2010 November 5). Population Growth and Size-Class Distribution of *Moina micrura* Krunz Reared in Six Culture Methods, 14th Southern Luzon Zonal Research and Development Symposium and Planning Workshop, Western Philippines University - Puerto Princesa Campus, Puerto Princesa, Palawan, Philippines.
- 2010 March 9-12 Lauan, M.C., & Ocampo, P.P. (2010 March 9-12). Gonadal Influence of Carbaryl, Chloryrifos and Imidacloprid Insecticides in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus), PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines.
- 2010 March 9-10 Palis, F.J.C., Lauan, M.C.B., Lontoc, B.M., Padalhin, A., & Ocampo, P.P. (2010 March 9-10). Imidacloprid Exposure and Feeding Stress Effects on Splenic Melanomacrophage in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus), PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines.
- 2007 March 20-23 Ocampo, P.P., Sagun, V.G., & Lauan, M.C.B. (2007 March 20-23). Gonadal changes in Nile tilapia (*Oreochromis niloticus* Linn.) after exposure to imidacloprid insecticide, 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines.
- 2007 March 20-23 Ocampo, P.P., Legaspi, D.B., & Lauan, M.C.B. (2007 March 20-23). Thiobencarb-induced changes in branchial histology in Nile tilapia (*Oreochromis niloticus* Linn.), 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines.
- 2007 March 20-23 Ocampo, P.P., Ugaddan, G.G., & Lauan, M.C.B. (2007 March 20-23). Brain acetylcholinesterase activity following exposure to glyphosate herbicide in tilapia (*Oreochromis niloticus* Linn.), 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines.
- 2006 May 2-5 Romabiles, L.C., Ocampo, P.P., & Lauan, M.C.B. (2006 May 2-5). Acetylcholinesterase

(AChE) inhibition and histological changes in Asian brackish water frogs (*Rana cranivora* Gravenhorst) associated with exposure to chlorpyrifos insecticide, 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines.

- 2006 May 2-5 Nicolas, M.C.F., Ocampo, P.P., & Lauan, M.C.B. (2006 May 2-5). Blood Acetylcholinesterase (AChE) inhibition and melanomacrophage centers (MMCs) formation in nile tilapia (*Oreochromis niloticus* Linn.) as induced by exposure to chlorpyrifos insecticide, 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines.
- 2000 May 3-6 Ocampo, P.P., Lauan, M.C.B., Ocampo, V.R., & Lontoc, B.M. (2000 May 3-6). Effects the gamma radiation has on female corn earworm, *Helicoverpa armigera* Hubner, 31st Pest Management Council of the Philippines (PMCP) Convention. Hotel Supreme, Baguio City, Philippines.

Publications

- 2018 Samsudewa, D., Capitan, S.S., Sevilla, C.C., Vega, R.S.A., & Ocampo, P.P., Gonadal changes in male tilapia (*Oreochromis niloticus* Linn.) after exposure to imidacloprid insecticide. IOP Conference Series: Earth and Environmental Science, 2018, 119:012027.
Samsudewa, D., Capitan, S.S., Sevilla, C.C., Vega, R.S.A., & Ocampo, P.P., Hematologic Profile and Semen Quality of Male Timor Deer (*Rusa timorensis*) at Various Hierarchies. IOP Conference Series: Earth and Environmental Science, 2018, 119:012027.
- 2017 Samsudewa, D., Capitan, S.S., Sevilla, C.C., Vega, R.S.A., & Ocampo, P.P., Body measurements and testosterone level of male Timor deer (*Rusa timorensis*) at various hierarchies. Journal of the Indonesian Tropical Animal Agriculture, 2017, 42(4):227-232.
- 2016 Corpuz, M.N.C., Ocampo, P.P., & Paller, V.G., Diversity and distribution of freshwater fishes in Lake Taal River Systems in Batangas, Philippines. Journal of Environmental Science and Management, 2016, 19(1):85-95.
- 2015 Corpuz, M.N.C., Paller, V.G.V., & Ocampo, P.P., Environmental variables structuring the stream gobioid assemblages in the three protected areas in Southern Luzon, Philippines. Raffles Bulletin of Zoology, 2015, 63:357-365.
Armero-Lituañas, M.A., & Ocampo, P.P., Melanomacrophage proliferation in the spleen of Nile tilapia (*Oreochromis niloticus* L.) as biomarker of insecticides loading from the waters of Laguna de Bay, Municipality of Bay, Laguna, Philippines. International Journal of Agricultural Resources, Governance and Ecology, 2015, 11(1):11-23.
Corpuz, M.N.C., Paller, V.G.V., & Ocampo, P.P., Ichthyofaunal Survey in Selected Freshwater Habitats in Camarines Sur, Philippines. Asian Journal of Biodiversity, 2015, 6(1):80-99.
- 2014 Vedra, S.A., & Ocampo, P.P., The Fishery Potential of Freshwater Gobies in Mandulog River, Northern Mindanao, Philippines. Asian Journal of Agriculture and Development, 2014, 11(1):95-103.
- 2013 Lauan, M.C.B., & Ocampo, P.P., Low-dose effects of carbaryl, chlorpyrifos and imidacloprid insecticides on the gonad and plasma testosterone level of male juvenile and adult Nile tilapia (*Oreochromis niloticus* Linnaeus). Asia Life Sciences, 2013, 22(1):239-250.
Paller, V.G.V., Corpuz, M.N.C., & Ocampo, P.P., Diversity and Distribution of Freshwater Fish Assemblages in Tayabas River, Quezon (Philippines). Philippine Journal of Science, 2013, 142(1):55-67.
Vedra, S.A., Ocampo, P.P., de Lara, A.V., Rebancos, C.M., Pacardo, E.P., & Briones, N.D., Indigenous goby population in Mandulog river system and its conservation by

- communities in Iligan City, Philippines. *Journal of Environmental Science and Management*, 2013, 16(2):11-18.
- Vedra, S.A., & Ocampo, P.P., Morphology of *Rhyacichthys aspro* (Valenciennes 1837) in mandulog river system, Iligan city, Northern Mindanao, Philipines. *International Journal of Research in BioSciences*, 2013, 2(2):93-105.
- 2011
 Paller, V.G.V., Labatos, Jr., B.V., Lontoc, B.M., Matalog, O.E., & Ocampo, P.P., Freshwater fish fauna in watersheds of Mt. Makiling forest reserve, Laguna, Philippines. *Philippine Journal of Science*, 2011, 140(2):195-206.
 Paraso, M.G.V., Librojo-Basilio, N.T., Vega, R.S.A., Rebancos, C.M., Flavier, M.E., Ocampo, P.P., & Capitan, S.S., 17beta-estradiol and organochlorine pesticide levels in the east and west sites of Laguna de Bay. *Journal of Environmental Science and Management*, 2011, 14(2):36-42.
 Paraso, M.G., Librojo-Basilio, N.T., Rebancos, C.A., Ocampo, P.P., & Capitan, S.S., Melanomacrophage centers and hepatosomatic index in the common carp (*Cyprinus carpio Linnaeus, 1758*) (Actinopterigil:Cyprinidae) introduced to the east and west sites of Laguna de Bay, Philippines. *Philippine Journal of Veterinary Medicine*, 2011, 46(2):95-100.
- 2010
 Lauan, M.C., & Ocampo, P.P., Gonadal Influence of Carbaryl, Chlorpyrifos and Imidacloprid Insecticides in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus). Proceedings of the PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines, 2010.
 Palis, F.J.C., Lauan, M.C.B., Lontoc, B.M., Padalhin, A., & Ocampo, P.P., Imidacloprid Exposure and Feeding Stress Effects on Splenic Melanomacrophage in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus). Proceedings of the PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines, 2010.
- 2009
 Ugaddan, G.R., & Ocampo, P.P., Brain acetylcholinesterase (AChE) activity and liver melano macrophage centers (MMCs) formation in Nile tilapia (*Oreochromis niloticus* L.) following exposure to glyphosate herbicide. *Asia Life Sciences*, 2009, 18(1):73-85.
 Ocampo, P.P., & Sagun, V.G., Gonadal changes in male tilapia (*Oreochromis niloticus* Linn.) after exposure to imidocloprid insecticide. *Philippine Entomologist*, 2009, 21(2):199-200.
- 2007
 Ocampo, P.P., Legaspi, D.B., & Lauan, M.C.B., Thiobencarb-induced changes in branchial histology in Nile tilapia (*Oreochromis niloticus* Linn.). Proceedings of the 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines, 2007.
 Ocampo, P.P., Ugaddan, G.G., & Lauan, M.C.B., Brain acetylcholinesterase activity following exposure to glyphosate herbicide in tilapia (*Oreochromis niloticus* Linn.). Proceedings of the 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines, 2007.
- 2006
 Romabiles, L.C., Ocampo, P.P., & Lauan, M.C.B., Acetylcholinesterase (AChE) inhibition and histological changes in Asian brackish water frogs (*Rana crancrivora* Gravenhorst) associated with exposure to chlorpyrifos insecticide. Proceedings of the 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines, 2006.
 Nicolas, M.C.F., Ocampo, P.P., & Lauan, M.C.B., Blood Acetylcholinesterase (AChE) inhibition and melanomacrophage centers (MMCs) formation in nile tilapia (*Oreochromis niloticus* Linn.) as induced by exposure to chlorpyrifos insecticide. Proceedings of the 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines, 2006.

- 2004 Lauan, M.C.B., Ocampo, P.P., & Ocampo, V.R., Ovarian changes induced by gamma radiation treatments on corn earworm, *Helicoverpa armigera* Hubner (Lepidoptera:Noctuidae). *Philippine Entomologist*, 2004, 18(1):44-54.
- 2000 Ocampo, P.P., Lauan, M.C.B., Ocampo, V.R., & Lontoc, B.M., Effects the gamma radiation has on female corn earworm, *Helicoverpa armigera* Hubner. Proceedings of the 31st Pest Management Council of the Philippines (PMCP) Convention. Hotel Supreme, Baguio City, Philippines, 2000.
- Rimas, M.F.M., Ocampo, P.P., & Ocampo, V.R., Effects of gamma radiation on the testicular cells of corn earworm (*Helicoverpa armigera* (Hubner)). *Philippine Entomologist*, 2000, 14(2):159-174.
- 1995 Tejada, A.W., Varca, L.M., Calumpang, S.M.F., Ocampo, P.P., Medina, M.J.B., Bajet, C.M., Paningbatan, E.B., Medina, J.R., Justo, V.P., Habito, C.dL., Martinez, M.R., & Magallona, E.D., Assessment of the environmental impact of pesticides in paddy rice production. In: Pingali, P.L. & Roger, P.A., (Eds.) *Impact of Pesticides on Farmer Health and the Rice Environment*. Natural Resource Management and Policy. Springer, Dordrecht, 1995, 7.
- 1993 Tejada, A.W., Varca, L.M., Ocampo, P., Bajet, C.M., & Magallona, E.D., Fate and residues of pesticides in rice production. *International Journal of Pest Management*, 1993, 39(3):281-287.
- Ocampo, P.P., & Villa, A.O., Evaluating *Dioscorea hispida* Dennst as potential botanical rodenticide 1: acute and oral toxicity and some histopathological effects to common ricefield rats (*Rattus rattus mindanensis* Mearns) [1991]. *Philippine Agriculturist*, 1993, 74(2):291-297.
- Florentino, C., Ocampo, P.P., & Ocampo, V.R., Effects of lagundi (*Vitex negundo* L.) crude extracts on some reproductive parameters of adult male albino rats. Annual Scientific Meeting of the Pest Management Council of the Philippines, Cebu City, Philippines, 1993.
- 1992 Chio, J.T., Dayrit, F.M., Ocampo, P.P., & Ocampo, V.R., A study on the environmental impact of detergents, III: Toxicity of Alkylbenzene Sulfonates (ABS) and Coconut Fatty Alcohol Sulfates Towards Fish and Rats. *Philippine Journal of Science*, 1992:39-50.

Name David P. Penalosa, Jr.

Sex Male

Organizational Affiliations

Associate Professor, Chemistry Department, College of Science, De La Salle University, Manila 0922 Philippines

Education

Postdoc, Applied Chemistry, Kyushu University, Fukuoka 819-0395 Japan 2012

Doctor of Philosophy in Chemistry, University of Connecticut, Storrs, CT 06268 USA 2011

Fields of Specialization

Polymer Chemistry

Materials Characterization

Colloids and surface science

Materials Chemistry

Employment

Associate Professor, De La Salle University, 2015-Present

Assistant Professor (Department of Chemical Engineering), Keimyung University: Daegu, 2013 March-2015 July

Research Assistant Professor, Professor K. Tanaka Laboratory, Department of Applied Chemistry, Kyushu University, 2012 February-2013 February

Postdoctoral Associate, Department of Applied Chemistry, Kyushu University, 2011 May-2012 February

Chemistry Instructor, Department of Chemistry, Valdosta State University, 2010 August-2011 May

Association Membership

Member, The Chemical Society of the Philippines

Member, American Chemical Society

Elected Fellow, Sigma Xi Honors Society (Elected Fellow)

Member, American Physical Society

Member, The Chemical Society of Japan

Member, The Society of Polymer Science, Japan

Member, The Clay Mineral Society, USA

Honors / Awards

Br Crescentius Richard Duerr FSC Chair in Chemistry, De La Salle University, Philippines 2017 September to 2018 August

Synthesis and characterization of clay-unsaturated polyester resin (UPR) nanocomposites
Research Grant, URCO, De La Salle University, Philippines 2017 to 2018

DLSU Publication Incentive, De La Salle University, Philippines 2016

3rd Best Professor Community Report, Keimyung Center for Teaching and Learning (KCTL), Keimyung University, South Korea 2014

Keimyung University Support Research Incentive Award, Keimyung University, South Korea 2013

BISA Research Grant, Keimyung University, South Korea 2013

Elected Fellow, Sigma Xi Honors Society, USA 2012

Global Center of Excellence (G-COE) Postdoctoral Research Fellowship, Ministry of Education, Culture, Sports, Science and Technology, Japan 2011-2012

J1 Academic Training Program, Valdosta State University (host institution), University of Connecticut (sponsor) 2010-2011

UCONN Research Foundation Doctoral Dissertation Fellowship Award, University of Connecticut, USA 2009

Teaching Assistantship, Chemistry Department, University of Connecticut, USA 2008-2010

Ford Foundation International Fellowship Program, Ford Foundation, USA 2004-2008

State Scholarship Program, National Government, Philippines 1992-1996

Researches

Ongoing

Polymer-inorganic nanohybrid materials via SI-ROMP

Self-assembled systems

Surface/interface studies

Papers Presented

- 2009 August 19 Penalosa, D., Jr. (2009 August 19). POLY 487-Synthesis and characterization of montmorillonite-polynorbornene nanocomposite, 238th American Chemical Society National Meeting, Washington, DC, USA.

Publications

- 2019 Penalosa, D.P., Modified clay for the synthesis of clay-based nanocomposites. Epitoanyag – Journal of Silicate Based and Composite Materials, 2019:Accepted.

- 2018 Chen, W.Q., Chung, M.C., Valinton, J.A.A., Penalosa, D.P., Chuang, S.H., & Chen, C.H., Heterojunctions of silver–iron oxide on graphene for laser-coupled oxygen reduction reactions. Chemical Communications, 2018, 54(57):7900-7903.

- Penaloza, D.P., & Seery, T.A.P., Preparation and characterization of clay-polymer nanocomposite having covalently-bound poly(norbornenes) with pendant cholesterols. Materials Research, 2018:In press.

- Penaloza, D.P., & Seery, T.A.P., Silylated functionalized montmorillonite clay for nanocomposite preparation. Epitoanyag – Journal of Silicate Based and Composite Materials, 2018, 70(5):140-145.

- 2017 Penalosa, D.P., Review on the preparation, structure and property relation of clay-based polymer nanocomposites. *KIMIKA*, 2017, 28(1):44-56.
- 2016 Penalosa, D.P., Mechanical and thermal properties of clay-poly (norbornene) nanocomposites from ruthenium alkylidene-mediated surface-initiated polymerization. *KIMIKA*, 2016, 27(1):23-29.
 Shundo, A., Hori, K., Penalosa, D.P., Matsumoto, Y., Okumura, Y., Kikuchi, H., & Tanaka, K., Hierarchical spatial heterogeneity in liquid crystals composed of graphene oxides. *Physical Chemistry Chemical Physics*, 2016, 18(32):22399-22406.
- 2015 Penalosa, D.P., Sandberg, D.J., Giotto, M.V., & Seery, T.A., An exfoliated clay-poly(norbornene) nanocomposite prepared by metal-mediated surface-initiated polymerization. *Polymer Engineering & Science*, 2015, 55(10):2349-2354.
 Hirai, T., Oda, Y., Penalosa, D.P., Kawaguchi, D., & Tanaka, K., Chapter 19: Control of surface structure and dynamics of polymers based on precision synthesis. In: Hadjichristidis, N., & Hirao, A., (eds.), *Anionic Polymerization: Principles, Practice, Strength, Consequences and Applications*. Springer Japan, 2015:861-880.
- 2014 Shundo, A., Hoshino, Y., Higuchi, T., Matsumoto, Y., Penalosa, D. P., Matsumoto, K., & Tanaka, K., Facile microcapsule fabrication by spray deposition of a supramolecular hydrogel. *RSC Advances*, 2014, 4(68):36097-36100.
- 2013 Seery, T.A., & Penalosa, D.P., Montmorillonite poly(norbornene) nanocomposites from ruthenium alkylidene surface-initiated polymerization. In: *Abstracts of Papers of the American Chemical Society* (Vol. 245). 1155 16th St, NW, Washington DC 20036 USA: Amer. Chem. Soc., 2013.
 Hirai, T., Haraguchi, M., Sakai, A., Penalosa, D. P., Ozawa, M., Miyaji, K., & Tanaka, K., Water-sliding property of polyacrylates with different fluoro side chains. *Chemistry letters*, 2013, 42(5):483-485.
 Shundo, A., Hori, K., Penalosa, D. P., & Tanaka, K., Analysis of local physical properties in soft materials by temperature-controllable optical tweezers. *Technical report of IEICE. OME*, 2013, 112(456):51-54.
 Shundo, A., Penalosa, D. P., & Tanaka, K., Microscopic heterogeneity in viscoelastic properties of molecular assembled systems. *Chinese Journal of Polymer Science*, 2013, 31(1):1-11.
 Shundo, A., Hori, K., Penalosa, D. P., Yoshihiro, K., Annaka, M., & Tanaka, K., Nonsolvents-induced swelling of poly (methyl methacrylate) nanoparticles. *Physical Chemistry Chemical Physics*, 2013, 15(39):16574-16578.
 Penalosa, D.P., Shundo, A., Matsumoto, K., Ohno, M., Miyaji, K., Goto, M., & Tanaka, K., Spatial heterogeneity in the sol-gel transition of a supramolecular system. *Soft Matter*, 2013, 9(21):5166-5172.
 Shundo, A., Hori, K., Penalosa, D.P., Jr., & Tanaka, K., Optical tweezers with fluorescence detection for temperature-dependent microrheological measurements. *AIP Review of Scientific Instruments*, 2013, 84(1):014103.
- 2012 Penalosa, D.P., Jr., Hori, K., Shundo, A., & Tanaka, K., Spatial heterogeneity in a lyotropic liquid crystal with hexagonal phase. *Physical Chemistry Chemical Physics*, 2012, 14(15):5247-5250.
 Hori, K., Penalosa, D.P., Jr., Shundo, A., & Tanaka, K., Time-dependent heterogeneity in viscoelastic properties of worm-like micelle solutions. *Soft Matter*, 2012, 8(28):7361-7364.
- 2011 Penalosa, D.P., *Synthesis and characterization of polymer-clay systems prepared by surface-initiated polymerization*. University of Connecticut, 2011.

- 2009 Yavuz, M. S., Jensen, G. C., Penalosa, D. P., Seery, T. A., Pendergraph, S. A., Rusling, J. F., & Sotzing, G. A., Gold nanoparticles with externally controlled, reversible shifts of local surface plasmon resonance bands. *Langmuir*, 2009, 25(22):13120-13124.
- Penaloza, D.P., & Seery, T.A., Synthesis and characterization of montmorillonite-poly(norbornene) nanocomposite. *Polymer Preprints (Am. Chem. Soc., Div. Polym. Chem.)*, 2009, 50(2):655-656.
- 2008 Ahn, S.K., Penalosa, D.P., Sandberg, D., Kasi, R., & Seery, T.A., Nanocomposites From Silica Nanoparticles Polynorbornenes With Pendant Cholesterols. *Polymer Preprints (Am. Chem. Soc., Div. Polym. Chem.)*, 2008, 49(2):760-761.

Name	Roderick Borong Pernites
Sex	Male
Education	<p>Postdoctoral, Chemical Engineering, Rice University, Houston, Texas, USA 2013</p> <p>Postdoctoral, Biochemistry, Baylor College of Medicine, Houston, Texas, USA 2012</p> <p>Doctor of Philosophy in Chemistry and Chemical Biology, University of Houston, Houston, Texas, USA 2011</p> <p>Master of Science in Chemistry, National University of Singapore, Lower Kent Ridge Rd, Singapore 2006</p> <p>Bachelor of Science in Chemical Engineering Minor in Management, Mapua Institute of Technology, Muralla, Manila, Philippines 2003</p>
Fields of Specialization	<p>Polymerization</p> <p>Nanocomposites</p> <p>Cyclic Voltammetry</p> <p>Electrodeposition</p> <p>Conducting Polymers</p> <p>Materials Chemistry</p> <p>Nanotechnology</p> <p>Electrochemistry</p>
Employment	<p>Senior Development Scientist - Cementing R&D, BJ Services, 2018 April-Present</p> <p>Development Scientist - Cementing R&D, BJ Services, 2017 April-2018 March</p> <p>R&D Scientist and Project Lead, Lubrizol Oilfield Solutions - The Lubrizol Corporation, 2015 April-2017 April</p> <p>R&D Scientist, Weatherford, 2013 March-2015 March</p> <p>Postdoctoral Research Fellow, Department of Chemical and Biomolecular Engineering, Rice University, 2011 September-2013 March</p> <p>Postdoctoral Research Associate, Department of Biochemistry and Molecular Biology, Baylor College of Medicine, 2011 September-2012 March</p> <p>Teaching Assistant, Department of Chemistry, University of Houston, 2006 August-2011 August</p> <p>Research Officer, Institute of Chemical and Engineering Sciences, 2006 January-2006 July</p>

Teaching Assistant, Department of Chemistry, National University of Singapore, 2004
January-2005 December

Development Chemistry Intern, Colgate Palmolive, 2002

Association Membership

Member, Philippine Institute of Chemical Engineers
Member, Honor Society of Mapua
Member, AMiCUS-Mapua Chapter
Member, Sigma Xi - The Scientific Research Society
Member, Golden Key International Honour Society
Member, American Chemical Society
Member, Society of Plastic Engineers
Member, National Association of Corrosion Engineers

Researches

Completed

Types of electrodeposited polymer coatings with reversible wettability and electro-optical properties

Papers Presented

- 2018 September 24- Pernites, R., Clark, J., Padilla, F., & Jordan, A. (2018 September 24-26). New Advanced High-Performance Ultrafine Micromaterials for Providing Superior Properties to Cement Slurry and Set Cement in Horizontal Wells, Society of Petroleum Engineers Annual Technical Conference and Exhibition.
- 2018 September 5-6 Pernites, R., Clark, J., Padilla, F., Jamison, C., & Jordan, A. (2018 September 5-6). Novel High Performing Non-Beaded Lightweight Cements with Enhanced Mechanical Properties for Enabling Faster Drilling, Society of Petroleum Engineers Liquids-Rich Basins Conference - North America, Midland, Texas, USA.
- 2018 April 22- Pernites, R.P., Padilla, F., Clark, J., Gonzalez, A., & Fu, D. (2018 April 22-26). Novel and High Performing Wellbore Cleaning Fluids with Surprisingly Flat Viscosity over Time and Different Temperatures, Society of Petroleum Engineers Western Regional Meeting, Garden Grove, California, USA.
- 2017 April 3-5 Pernites, R., Clark, J., & Santra, A. (2017 April 3-5). New Polymeric High Temperature Cement Retarder with Synergistic Suspending Aid Property in Fluid Loss Control Polymers, Society of Petroleum Engineers.
- 2015 April 27- Pernites, R., Khammar, M., & Santra, A. (2015 April 27-30). Robust Spacer System for Water and Oil based Mud, SPE Western Regional Meeting, Garden Grove, California, USA.

Publications

- 2018 Pernites, R., Padilla, F., Clark, J., Gonzalez, A., & Fu, D., Novel and High Performing Wellbore Cleaning Fluids with Surprisingly Flat Viscosity over Time and Different Temperatures. Proceedings of the SPE Engineers Western Regional Meeting, Garden Grove, California, USA, 2018.

- Pernites, R., Clark, J., Padilla, F., Jamison, C., & Jordan, A., Novel High Performing Non-Beaded Lightweight Cements with Enhanced Mechanical Properties for Enabling Faster Drilling. Proceedings of the SPE Liquids-Rich Basins Conference - North America, Midland, Texas, USA, 2018.
- Pernites, R., Clark, J., Padilla, F., & Jordan, A., New Advanced High-Performance Ultrafine Micromaterials for Providing Superior Properties to Cement Slurry and Set Cement in Horizontal Wells. Proceedings of the SPE Annual Technical Conference and Exhibition, Dallas, Texas, USA, 2018.
- 2017 Pernites, R., Clark, J., & Santra, A., New Polymeric High Temperature Cement Retarder with Synergistic Suspending Aid Property in Fluid Loss Control Polymers. Proceedings of the SPE International Conference on Oilfield Chemistry, Montgomery, Texas, USA, 2017.
- 2016 Vergara, A.V., Pernites, R.B., Tiu, B.D.B., de Leon, A.C.C., Mangadlao, J.D., Binag, C.A., & Advincula, R.C., Capacitive Detection of Morphine via Cathodically Electropolymerized, Molecularly Imprinted Poly(p-aminostyrene) Films. *Macromolecular Chemistry and Physics*, 2016, 217(16):1810-1822.
- Pernites, R.B., & Santra, A.K., Portland cement solutions for ultra-high temperature wellbore applications. *Cement and Concrete Composites*, 2016, 72:89-103.
- Tiu, B.D.B., Pernites, R.B., Tiu, S.B., & Advincula, R.C., Detection of Aspartame via Microsphere-Patterned and Molecularly Imprinted Polymer Arrays. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 2016, 495:149-158.
- 2015 Tiu, B.D.B., Pernites, R.B., Foster, E.L., & Advincula, R.C., Conducting polymer-gold co-patterned surfaces via nanosphere lithography. *Journal of Colloid and Interface Science*, 2015, 459:86-96.
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Papers Presented	<p>2008 May 4-9 Estacio, E.S., Saito, S., Nakazato, T., Furukawa, Y., Tatsumi, T., Pham, M.H., Cadatal, M., Pонсека, C., Jr., Mizuseki, H., Kawazoe, Y., & Sarukura, N. (2008 May 4-9). Terahertz Birefringence of beta-Ba₂O₄ (BBO) Crystal, 2008 Conference on Lasers and Electro-Optics and 2008 Conference on Quantum Electronics and Laser Science.</p> <p>2007 Cadatal, M., Seo, Y., Tatsumi, T., Pham, M., Pонсека, C., Jr., Ono, S., Estacio, E., Furukawa, Y., Murakami, H., Fujimoto, Y., Sarukura, N., Nakatsuka, M., Fukuda, K., Simura, R., Suyama, T., Yoshikawa, A., & Fukuda, T. (2007). Nd³⁺:(La_{1-x},Ba_x)F_{3-x} Grown</p>

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- 2006 September 18-22 Понсеа, С.С., Куема, А.В., де лос Рейес, Г., Эстасио, Е., Кадатал, М.М., Побре, Р., Куриога, Р., Мураками, Х., Оно, С., Сарукара, Н., Танно, Т., Сасаки, Т., Суто, К., Нисикава, І., & Томинага, К. (2006 September 18-22). Terahertz transmission spectroscopic analysis of mono-and di-substituted hydroxynaphthalenes in the 0.5-to 6-THz region using GaP THz wave generator, 2006 Joint 31st International Conference on Infared Millimeter Waves and 14th International Conference on Terahertz Electronics.
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Papers Presented

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2014 May 30 - Benjamin, M.F.D., Tan, R.R., & Razon, L.F. (2014 May 30 - 2014 June 2). A methodology for criticality analysis in symbiotic bioenergy parks, 6th International Conference on Applied Energy - ICAE2014, Taipei, Taiwan.

2010 July Do, N.T.Q., Dang, S.V., Phan, H., Nguyen, T.K., Razon, L., Tan, R., Hinode, H., & Aida, T. (2010 July). Modeling Reverse-Flow Monolith Reactor for Production of Syngas by Partial Oxidation of Methane, 5th International Symposium on Design, Operation and Control of Chemical Processes, PSE ASIA, Singapore.

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2018 Fortun, N.T., Lao, A.R., Razon, L.F., & Mendoza, E.R., Multistationarity in Earth's Pre-Industrial Carbon Cycle Models. Manila Journal of Science, 2018, 11:81-96.

Promentilla, M.A.B., Aviso, K.B., Lucas, R.I.G., Razon, L.F., & Tan, R.R., Teaching Analytic Hierarchy Process (AHP) in Undergraduate Chemical Engineering Courses. Education for Chemical Engineers, 2018, 23:34-41.

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Education	<p>Doctor of Agricultural Science in Crop Processing, Iwate University, 3 Chome-18-Ueda, Morioka, Iwate Prefecture 020-8550, Japan 2001</p> <p>Master of Science in Agricultural Engineering, University of the Philippines Los Baños, College, Laguna, 4031 Philippines</p> <p>Bachelor of Science in Agricultural Engineering, University of the Philippines, Diliman, Quezon City 1980</p>
Fields of Specialization	<p>Agriculture</p> <p>Renewable Energy Technologies</p> <p>Crop Management</p> <p>Rice</p> <p>Alternative Fuels</p> <p>Rice Processing</p>
Employment	<p>Research Scientist, Philippine Rice Research Institute, 2016 January-Present</p> <p>Deputy Executive Director for Research & Scientist I, Philippine Rice Research Institute, 2010 August-2015 December</p> <p>Chief Science Research Specialist, Philippine Rice Research Institute, 2008 October-2010 July</p> <p>Supervising Science Research Specialist, Philippine Rice Research Institute, 1999 October-2008 September</p> <p>Senior Science Research Specialist, Philippine Rice Research Institute, 1998 March-1999 September</p> <p>Project Manager, Philippine Ministry of Human Settlements, 1983-1986</p> <p>Research Engineer, University of the Philippines Los Baños, 1979 November-1982 December</p>
Publications	<p>2018 Regalado, M.J.C., Belonio, A.T., Rafael, M.L., Villota, K.C., Castillo, P.R., & Gagelona, E.C., Design, Testing, and Evaluation of a Hydrous Bioethanol Distiller for the Production of Fuel-grade Alcohol from Nipa Sap (<i>Nypa fruticans</i>). 2017 ASABE Annual International Meeting 1700918.(doi:10.13031/aim.201700918). American Society of Agricultural and Biological Engineers, 2018.</p> <p>Regalado, M.J.C., Belonio, A.T., Villota, K.C., Rafael, M.L., & Castillo, P.R., Design, Testing, and Evaluation of a Hydrous Bioethanol Distiller for the Production of Fuel-</p>

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- 2016 Tuaño, A.P.P., Regalado, M.J.C., & Juliano, B.O., Grain quality of rice in selected retail stores and supermarkets in the Philippines. International Journal of Philippine Science and Technology (formerly Philippine Science Letters), 2016, 9(1):15-22.
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- 2001 Gagelonia, E.C., Regalado, M.J.C., Bautista, E.U., & Aldas, R.E., Flatbed dryer re-introduction in the Philippines. Agricultural Mechanization in Asia, Africa and Latin America, 2001, 32(3):60-66 ref.11.
- 2000 Regalado, M.J.C., & Madamba, P.S., Design and testing of a combined conduction-convection rotary paddy dryer. Drying Technology, 2000, 18(9):1987-2008.
- Regalado, M.J.C., Bekki, E., & Madamba, P.S., Dehumidification drying of high-moisture rough rice in a radial-flow, circular bin. Drying Technology, 2000, 18(10):2307-2326.

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Sex Female
Education
Doctor of Philosophy in Chemistry, University of Houston, Houston, Texas, USA 2011
Master of Science in Chemistry, University of the Philippines, Diliman, Quezon City, Philippines 2005
Bachelor of Science in Chemistry, University of the Philippines, Diliman, Quezon City, Philippines 1999

Fields of Specialization

Surface Chemistry
Organic Chemistry
Analytical Chemistry
Polymer Chemistry
Thin Films
Spectroscopy
Material Science
Additives
Small molecules
Polymers
Nanomaterials
Organic Synthesis
Polymer Characterization
Nanotechnology

Employment

Senior Research Scientist, Fritz Industries, Inc., 2015 March-2016 December
Senior Scientist - Chemistry, Halliburton, 2014 March-2015 February
Materials Scientist, Eastman Kodak, 2011 September-2014 February
Graduate Research Assistant, University of Houston, 2006-2011
Instructor, University of the Philippines, Diliman, Quezon City, 2002-2006
Research Associate, University of the Philippines, Diliman, Quezon City, 2000-2002

Publications

2014 Kim, S.-H., Ohtsuka, H., Tria, M.C.R., Tanaka, K., Advincula, R.C., & Usui, H., Preparation of surface-tethered polymer layer on inorganic substrates by photoreactive

- self-assembled monolayer. *Thin Solid Films*, 2014, 554:78-83.
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 Ohtsuka, J., Kim, S.-H., Tria, M.C.R., Advincula, R.C., & Usui, H., Preparation of Poly(9-Vinylcarbazole) Thin Films Chemically Tethered to ITO Surface via Self-Assembled Monolayer Having Benzophenone Terminal Group. *Molecular Crystals and Liquid Crystals*, 2012, 568(1):125-133.
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- 2009 Fujie, T., Park, J.Y., Murata, A., Estillore, N.C., Tria, M.C.R., Takeoka, S., & Advincula, R.C., Hydrodynamic Transformation of a Freestanding Polymer Nanosheet Induced by a Thermoresponsive Surface. *ACS Applied Materials and Interfaces*, 2009, 1(7):1404-1413.
- 2006 Tria, M.C.R., Arias, M.A.A.E., Arco, S.D., & Perez, G.G., Syntheses of diester phthalates with potential antidiarrheal activities. *Philippine Agricultural Scientist*, 2006, 89(4):319-325.
- 2003 Endoma, M.A.A., Tria, M.C.R., & Arco, S.D., An approach to optically active ibuprofen through whole-cell and enzyme-catalyzed transformations. *Kimika*, 2003, 19(1):69-75.
Endoma, M.A.A., Arco, S.D., & Tria, M.C.R., Studies on the lipase-catalyzed resolution of amino alcohols and its application to the total synthesis of the antituberculous drug ethambutol. *Kimika*, 2003, 19(1):17-22.

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Education	<p>Doctor of Science in Chemistry and Biology, Graduate School of Science and Engineering, Ehime University, Matsuyama, Japan 2015</p> <p>Doctor of Science in Animal Sciences (Applied Biosciences) - 24 units earned, Kyungpook National University, Daegu, South Korea 2009</p> <p>Master of Science in Zoology (Vertebrate Biology), Cognate in Molecular Biology and Biotechnology, University of the Philippines Los Baños, Laguna, Philippines 2007</p> <p>Bachelor of Science in Biology, Major in Cell and Molecular Biology, University of the Philippines Los Baños, Laguna, Philippines 1998</p>
Fields of Specialization	<p>Bioinformatics</p> <p>Biochemistry</p> <p>Genetics</p> <p>Proteomics</p> <p>Physiology</p> <p>Toxicology</p> <p>Molecular Biology</p> <p>Microscopy</p> <p>Polymerase Chain Reaction (PCR)</p> <p>Cell Biology</p> <p>Microbiology</p>
Employment	<p>Assistant Professor, Animal Biology Division, Institute of Biological Science, University of the Philippines Los Baños, Laguna, 2002-Present</p>
Association Membership	<p>Member, Society of Environmental Toxicology and Chemistry-Asia Pacific</p> <p>Member, Philippine Association of Japanese Government Scholars (PHILAJAMES)</p> <p>Member, Philippine Society for the Study of Nature Inc.</p> <p>Member, Kapisanang Kimika ng Pilipinas Souther Luzon Chapter</p> <p>Member, Biology Teachers Association of the Philippines, Inc.</p> <p>Member, Philippine Society of Molecular Biology and Biochemistry</p>

- Member, Society of Toxicology
Member, Human Proteome Society
Member, Japan Human Proteome Society
Member, Alpha Phi Kappa Honor Biological Society

Honors / Awards

MEXT (Monbukagakusho) Scholarship, Japan Government 2012-2015

Papers Presented

- 2018 May 16- Gutierrez, J.C., Madrid, J.A., Ortega, M.A., Paguirigan, D., Villar, C.F., Aurellado, M.E., & Tsuchiya, M.C. (2018 May 16-18). Increasingly colder waters induce physiological and behavioral changes in guppies (*Poecilia reticulata*), International Conference in Nature Studies and Innovations for the Environment and PSSN 18th Annual Scientific Conference, UST, Manila.
- 2018 May 16- Pablo, C.G., Enterina, M.Z., Quirona, J.J., Sager, J.C., Tolentino, I.M., Valdez, L., & Tsuchiya, M.C. (2018 May 16-18). Alkaline water decreases blood glucose, RBCs, and WBCs in adult Philippine silver perch (*Leiopotherapon plumbeus*), International Conference in Nature Studies and Innovations for the Environment and PSSN 18th Annual Scientific Conference, UST, Manila.
- 2017 June 30 - Legaspi, C.L.B., Tsuchiya, M.C.L., Hirano, M., Agusa, T., Matsuoka, J.-N., Kunisue, T., & July 3 Iwata, H. (2017 June 30 - July 3). Hepatic proteome analysis of nile tilapias from Philippines contaminated with POPs, 19th International Symposium on Pollutant Responses in Marine Organisms (PRIMO19). Matsuyama University, Matsuyama, Ehime, Japan.
- 2017 June 30 - Tsuchiya, M.C., Aquino, G.M., Kim, E.Y., & Iwata, H. (2017 June 30 - July 3). Identification of cytochrome p450 gene families in the liver transcriptome of baikal seals (*Pusa sibirica*), 19th International Symposium on Pollutant Responses in Marine Organisms (PRIMO19). Matsuyama University, Matsuyama, Ehime, Japan.
- 2016 December 5-7 Legaspi, C.L., Benigno, M.P., Bautista, S.A., Renolayan, K.A., Maligalig, M.D.G., & Tsuchiya, M.C.L. (2016 December 5-7). Anti-hyperglycemic activities and wound healing effect of soursop leaf (*Annona muricata* Linn.), 25th FAOBMB International Conference and 43rd Philippine Society of Biochemistry and Molecular Biology Annual Convention. Philippine International Convention Center, Manila.
- 2016 October 27-28 Tsuchiya, M.C.L., & Iwata, H. (2016 October 27-28). Investigation of Phenobarbital-induced Lysine Acetylation in Mouse Cyp2c isoforms, 45th Annual Convention of the Kapisanang Kimika ng Pilipinas Southern Tagalog. Splash Mountain Resort, Los Baños, Laguna.
- 2016 September 16-19 Andes, A., Concepcion, J., Pasion, N.J., Maligalig, M.D.G., & Tsuchiya, M.C.L. (2016 September 16-19). Environmental lead exposure and histopathological effects in Red Nile tilapia (*Oreochromis niloticus*), Society of Environmental Toxicology and Chemistry (SETAC) Asia Pacific Conference. National University of Singapore.
- 2016 May 24-28 Tsuchiya, M.C.L. (2016 May 24-28). Profiling the expression of liver CYP450 proteins in response to environmental pollutants, International Conference in Nature Studies and Innovations for the Environment and 16th Philippine Society for the Study of Nature Annual Scientific Conference. Silliman University, Dumaguete City.

- 2016 March 19 Tsuchiya, M.C.L., Yoo, J., Agusa, T., Hirano, M., & Iwata, H. (2016 March 19). Assessment of effects of dioxins in the Baikal seal (*Pusa sibirica*) by proteome and transcript analyses, International Symposium on Environmental Chemistry and Toxicology, Matsuyama, Japan.
- 2015 December 3-4 Lauan, M.C., Yoo, J., Suzuki, K., Agusa, T., Hirano, M., & Iwata, H. (2015 December 3-4). Identification of mouse cytochrome P450 2C isoforms by 2DE and MALDI-TOF MS-based proteomics approach, 42nd Philippine Society of Biochemistry and Molecular Biology Annual Convention, Manila, Philippines.
- 2015 December 3-4 Lauan, M.C., Yoo, J., Agusa, T., Hirano, M., & Iwata, H. (2015 December 3-4). Proteome and transcriptome analyses for identification of pathways affected by dioxin accumulation in Baikal seals, 42nd Philippine Society of Biochemistry and Molecular Biology Annual Convention, Manila, Philippines.
- 2015 September 10-13 Yamano, S., Gamboa, M., Lauan, M.C., Iwata, H., & Watanabe, K. (2015 September 10-13). Elucidation of the environmental adaptation of stoneflies population along the climate gradient of Japan by proteome analysis, 19th Annual Meeting of Applied Biosystems Engineering Society, Nihon University, Koriyama City, Japan.
- 2015 June 24-26 Takaguchi, K., Nomiyama, K., Lauan, M.C., Kusaki, M., Yoo, J., Mizukawa, H., Iwata, H., Kunisue, T., & Tanabe, S. (2015 June 24-26). Toxicity impact assessment by the brain proteome analysis of the dogs exposed to polychlorinated biphenyls (PCBs), 24th Symposium on Environmental Chemistry. Hokkaido University, Japan.
- 2015 May 24-27 Lauan, M.C., Yoo, J., Agusa, T., Hirano, M., Kim, E.Y., & Iwata, H. (2015 May 24-27). Hepatic Proteome Analysis of Baikal Seals Contaminated with Dioxins and Related Compounds, 18th International Symposium on Pollutant Responses in Marine Organisms. Trondheim, Norway.
- 2013 July 15-17 Lauan, M.C., Suzuki, K.T., Agusa, T., & Iwata, H. (2013 July 15-17). Identification of Cytochrome P450 Enzymes in Phenobarbital-treated Mouse LiverMicrosomes using 2-DE and MALDI- TOF/TOF, 3rd International Conference on Proteomics & Bioinformatics.
- 2010 March 9-12 Lauan, M.C., & Ocampo, P.P. (2010 March 9-12). Gonadal Influence of Carbaryl, Chlorpyrifos and Imidacloprid Insecticides in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus), PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines.
- 2010 March 9-12 Palis, F.J.C., Lauan, M.C.B., Lontoc, B.M., Padalhin, A., & Ocampo, P.P. (2010 March 9-12). Imidacloprid Exposure and Feeding Stress Effects on Splenic Melanomacrophage in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus), PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines.
- 2009 May 31 - June 4 Lauan, M.C.B., Santos, I.L.D., Park, S.M., & Lim, J. (2009 May 31 - June 4). Proteome Analysis and Evaluation of *Bacillus amyloliquefaciens* and *Bacillus subtilis* Secretomes, 57th ASMS Conference on Mass Spectrometry Pennsylvania Convention Center, Philadelphia, Pennsylvania, USA.
- 2009 May 12-13 Lee, A., Lauan, M.C.B., Choi, H., Park, S., Lee, J., Kim, J., & Lim, J. (2009 May 12-13). Proteomics changes in mouse intestinal mucosa by chungkukjang, 66th Korean Society for Biochemistry and Molecular Biology, COEX, Seoul, Korea.

- 2009 March 25-27 Lauan, M.C.B., Lee, A., Park, S., & Lim, J. (2009 March 25-27). A Comparative Study of *Bacillus subtilis* and *Bacillus amyloliquefaciens* extracellular proteomes, 9th Annual International Proteomics Conference. University Cultural Center, Seoul National University, Seoul, Korea.
- 2007 March 20-23 Ocampo, P.P., Sagun, V.G., & Lauan, M.C.B. (2007 March 20-23). Gonadal changes in Nile tilapia (*Oreochromis niloticus* Linn.) after exposure to imidacloprid insecticide, 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines.
- 2007 March 20-23 Ocampo, P.P., Legaspi, D.B., & Lauan, M.C.B. (2007 March 20-23). Thiobencarb-induced changes in branchial histology in Nile tilapia (*Oreochromis niloticus* Linn.), 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines.
- 2007 March 20-23 Ocampo, P.P., Ugaddan, G.G., & Lauan, M.C.B. (2007 March 20-23). Brain acetylcholinesterase activity following exposure to glyphosate herbicide in tilapia (*Oreochromis niloticus* Linn.), 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines.
- 2006 May 2-5 Romabiles, L.C., Ocampo, P.P., & Lauan, M.C.B. (2006 May 2-5). Acetylcholinesterase (AChE) inhibition and histological changes in Asian brackish water frogs (*Rana cranivora* Gravenhorst) associated with exposure to chlorpyrifos insecticide, 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines.
- 2006 May 2-5 Nicolas, M.C.F., Ocampo, P.P., & Lauan, M.C.B. (2006 May 2-5). Blood Acetylcholinesterase (AChE) inhibition and melanomacrophage centers (MMCs) formation in nile tilapia (*Oreochromis niloticus* Linn.) as induced by exposure to chlorpyrifos insecticide, 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines.
- 2000 May 3-6 Ocampo, P.P., Lauan, M.C.B., Ocampo, V.R., & Lontoc, B.M. (2000 May 3-6). Effects the gamma radiation has on female corn earworm, *Helicoverpa armigera* Hubner, 31st Pest Management Council of the Philippines (PMCP) Convention. Hotel Supreme, Baguio City, Philippines.

Publications

- 2017 Gamboa, M., Tsuchiya, M.C., Matsumoto, S., Iwata, H., & Watanabe, K., Differences in protein expression among five species of stream stonefly (*Plecoptera*) along a latitudinal gradient in Japan. Archives of Insect Biochemistry and Physiology, 2017, 96(3):e21422.
 Nguyen, H.T., Tsuchiya, M.C., Yoo, J., Iida, M., Agusa, T., Hirano, M., Kim, E.Y., Miyazaki, T., Nose, M., & Iwata, H., Strain differences in the proteome of dioxin-sensitive and dioxinresistant mice treated with 2,3,7,8-tetrabromodibenzo-p-dioxin. Archives of Toxicology, 2017, 91(4):1763-1782.
- 2015 Lauan, M.C., Yoo, J., Suzuki, K., Agusa, T., Hirano, M., & Iwata, H., Identification of mouse cytochrome P450 2C isoforms by 2DE and MALDI-TOF MS-based proteomics approach. Proceedings of the 42nd Philippine Society of Biochemistry and Molecular Biology Annual Convention, Manila, Philippines, 2015:146.
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- 2014 Lauan, M.C., Suzuki, K.T., Agusa, T., & Iwata, H., 2-DE and MALDI-TOF/TOF As a Tool to Monitor CYP2 Family Isoforms in the Phenobarbital-Treated Mouse Liver Microsomes. *The Toxicologist*, 2014, 138(1):134.
- 2013 Lauan, M.C., Santos, I.L., & Lim, J.K., Comparative Study of Extracellular Proteomes for *Bacillus subtilis* and *Bacillus amyloliquefaciens*. *Current Research on Agriculture and Life Sciences*, 2013, 31(1):30-39.
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Lauan, M.C., Suzuki, K.T., Agusa, T., & Iwata, H., Identification of Cytochrome P450 Enzymes in Phenobarbital-treated Mouse LiverMicrosomes using 2-DE and MALDI-TOF/TOF. *Journal of Proteomics and Bioinformatics*, 2013, 6(7):doi:10.4172/0974-276X.S1.069.
- 2010 Lauan, M.C., & Ocampo, P.P., Gonadal Influence of Carbaryl, Chlorpyrifos and Imidacloprid Insecticides in Male Nile Tilapia (*Oreochromis niloticus* Linnaeus). Proceedings of the PMCP's 41st Anniversary and Annual Scientific Conference. Waterfront Insular Hotel, Lanang, Davao City, Philippines, 2010.
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- 2009 Lauan, M.C.B., Santos, I.L.D., Park, S.M., & Lim, J., Proteome Analysis and Evaluation of *Bacillus amyloliquefaciens* and *Bacillus subtilis* Secretomes. Proceedings of the 57th ASMS Conference on Mass Spectrometry. Pennsylvania Convention Center, Philadelphia, Pennsylvania, USA, 2009.
Lauan, M.C.B., Lee, A., Park, S., & Lim, J., A Comparative Study of *Bacillus subtilis* and *Bacillus amyloliquefaciens* extracellular proteomes. Proceedings of the 9th Annual International Proteomics Conference. University Cultural Center, Seoul National University, Seoul, Korea, 2009.
- 2007 Ocampo, P.P., Sagun, V.G., & Lauan, M.C.B., Gonadal changes in Nile tilapia (*Oreochromis niloticus* Linn.) after exposure to imidacloprid insecticide. Proceedings of the 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines, 2007.
Ocampo, P.P., Legaspi, D.B., & Lauan, M.C.B., Thiobencarb-induced changes in branchial histology in Nile tilapia (*Oreochromis niloticus* Linn.). Proceedings of the 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines, 2007.
Ocampo, P.P., Ugaddan, G.G., & Lauan, M.C.B., Brain acetylcholinesterase activity following exposure to glyphosate herbicide in tilapia (*Oreochromis niloticus* Linn.). Proceedings of the 38th PMCP Annual Scientific Convention. Tagbilaran City, Philippines, 2007.
- 2006 Romabiles, L.C., Ocampo, P.P., & Lauan, M.C.B., Acetylcholinesterase (AChE) inhibition and histological changes in Asian brackish water frogs (*Rana cranivora* Gravenhorst) associated with exposure to chlorpyrifos insecticide. Proceedings of the 37th PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines, 2006.
Nicolas, M.C.F., Ocampo, P.P., & Lauan, M.C.B., Blood Acetylcholinesterase (AChE) inhibition and melanomacrophage centers (MMCs) formation in nile tilapia (*Oreochromis niloticus* Linn.) as induced by exposure to chlorpyrifos insecticide. Proceedings of the 37th

- PMCP Annual Scientific Convention. Grand Regal Hotel, Davao City, Philippines, 2006.
- 2004 Lauan, M.C.B., Ocampo, P.P., & Ocampo, V.R., Ovarian changes induced by gamma radiation treatments on corn earworm, *Helicoverpa armigera* Hubner (Lepidoptera:Noctuidae). *Philippine Entomologist*, 2004, 18(1):44-54.
- 2000 Ocampo, P.P., Lauan, M.C.B., Ocampo, V.R., & Lontoc, B.M., Effects the gamma radiation has on female corn earworm, *Helicoverpa armigera* Hubner. Proceedings of the 31st Pest Management Council of the Philippines (PMCP) Convention. Hotel Supreme, Baguio City, Philippines, 2000.

Name Aristotle T. Ubando

Sex Male

Organizational Affiliations

Associate Professor, Department of Mechanical Engineering, Gokongwei College of Engineering, De La Salle University, 2401 Taft Avenue, 8th floor, Bro. Andrew Bldg., 0922 Manila, Philippines

Research Fellow, De La Salle University, 2401 Taft Avenue, 21st floor, Room 2105, Bro. Andrew Bldg., 0922 Manila, Philippines

Education

Doctor of Philosophy in Mechanical Engineering, De La Salle University, 2401 Taft Ave, Malate, Manila, 1004 Metro Manila 2014

Master of Science in Mechanical Engineering, University of the Philippines, Diliman, Quezon City 2009

Bachelor of Science in Mechanical Engineering, De La Salle University, 2401 Taft Ave, Malate, Manila, 1004 Metro Manila 2000

Fields of Specialization

Algae Biorefinery

Fuzzy Optimization

Microalgae

Bioenergy

Energy Systems Modelling

Employment

Associate Professor, De La Salle University, 2015-Present

Visiting Researcher, Microalgae Post-Harvesting Processes, University of Arizona, 2013-2014

Assistant Professor, De La Salle University, 2010-2014

Assistant Professor, University of the Philippines, 2009-2010

Lecturer, Mapua Institute of Technology, 2008-2009

Process and Equipment Engineer (PEED, ATD), Intel Technology Philippines, 2001-2006

Visiting Researcher, Microalgae Post-Harvesting Processes, Texas A&M University, 2014

Association Membership

Lifetime Member, Fulbright Philippine Agriculture Alumni Association (FPAAA)

Member, American Society of Mechanical Engineers (ASME)

Associate Member, National Research Council of the Philippines

Honors / Awards

- Outstanding Young Scientist Award (Mechanical Engineering), National Academy of Science and Technology (DOST-NAST) 2016
- Best Paper Award, National Academy of Science and Technology (DOST-NAST) 2015
- Philippine-US Research Exchange Grant Award (Project Principal Investigator), USAID Science, Technology, Research and Innovation for Development 2015 April
- Philippine Agriculture PhD Dissertation Scholarship Award, Fulbright Foundation 2013 September
- PhD Sandwich Program Award, Commission on Higher Education: Faculty Development Program II 2013 September
- University Scholar Award, University of the Philippines 2009
- National Graduate School of Engineering Scholarship Awardee, Engineering Research and Development for Technology 2007 May
- Gold Medal for Outstanding Thesis Award, De La Salle University 2000

Researches

Completed

Automation of the Coco Sugar Production

Life Cycle Assessment of Algal Biofuels in the Philippines

Papers Presented

- 2017 June 20- 22 Villagracia, A.R.C., Enriquez, J.I.G., Moreno, J.L., David, M.Y., Arboleda, N.B., Jr., Lin, O.H., Ubando, A.T., Culaba, A.B., & Cuello, J. (2017 June 20-22). An Investigation on the Effects of Time-Independent Electric Field on Periodic DPPC Lipid Bilayer using Molecular Dynamics for Microalgae Drying, DLSU Research Congress 2017, De La Salle University, Manila, Philippines.
- 2017 June 20- 22 Tapiador, J.I., Ubando, A.T., & Augusto, G.L. (2017 June 20-22). CFD Verification and Investigation on Building Geometries with BAWT, DLSU Research Congress 2017, De La Salle University, Manila, Philippines.
- 2016 March 7- 9 Aguilar, K.D.T., & Ubando, A.T. (2016 March 7-9). Application of a Fuzzy Mathematical Programming Approach with in the Optimal Design of an Algal Bioenergy Park with Product Price Variability, DLSU Research Congress, De La Salle University, Manila, Philippines.
- 2015 December 9-12 Ubando, A.T., Promentialla, M.A.B., Culaba, A.B., & Tan, R.R. (2015 December 9-12). Application of Spatial Analytic Hierarchy Process in the Selection of Algal Cultivation Site for Biofuel Production: A Case Study in the Philippines, IEEE Region 10 Humanitarian Technology Conference 2015. Waterfront Hotel, Cebu City, Philippines.
- 2015 December 9-12 Gue, I.H.V., Felix, C.B., Mayol, A.P., & Ubando, A.T. (2015 December 9-12). Application of Ant Colony Optimization on Transport Route of Algal Biofuels in the Philippines, IEEE Region 10 Humanitarian Technology Conference 2015. Waterfront Hotel, Cebu City, Philippines.

- 2015 December 9-12 Mañalac, A.J., & Ubando, A.T. (2015 December 9-12). Optimization Model in Microalgae based Biodiesel Supply Chain: A case study in the Philippines, IEEE Region 10 Humanitarian Technology Conference 2015. Waterfront Hotel, Cebu City, Philippines.
- 2015 December 9-12 Banal, L.F., & Ubando, A.T. (2015 December 9-12). Fuzzy Programming Approach to UAV Preliminary Sizing, IEEE Region 10 Humanitarian Technology Conference 2015. Waterfront Hotel, Cebu City, Philippines.
- 2015 December 9-12 Biona, J.B.M.M., Ubando, A.T., Jeremias, G.A., & Tan, H.C. (2015 December 9-12). A Comparative Life Cycle Analysis of Plastic and Paper Packaging Bags in the Philippines, IEEE Region 10 Humanitarian Technology Conference 2015. Waterfront Hotel, Cebu City, Philippines.
- 2015 November 5-6 Ubando, A.T., Felix, C.B., Gue, I.H.V., Mayol, A.P., Toeldo, N.A., Garibay, S.S., Jimenez, C.N., Biona, J.B.M.M., & Culaba, A.B. (2015 November 5-6). Priority Evaluation of Life Cycle Impact Factors for Algal Biofuel Production in the Philippines using Analytic Hierarchy Process, Regional Conference on Mechanical and Manufacturing Engineering, AUN/SEED-Net. Eastparc Hotel, Yogyakarta, Indonesia.
- 2015 August 23-27 Ubando, A.T., Culaba, A.B., Aviso, K.B., Tan, R.R., Cuello, J.L., Ng, D.K.S., & El-Halwagi, M.M. (2015 August 23-27). Fuzzy Mathematical Programming Approach in the Optimal Design of an Algal Bioenergy Park, 18th Conference of Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction (PRES Conference). Kuching, Sarawak, Malaysia.
- 2015 August 23-27 Ubando, A.T., Felix, C.B., Promentilla, M.A.B., & Culaba, A.B. (2015 August 23-27). Strategic site selection of microalgae industry in the Philippines using analytic hierarchy process, 18th Conference of Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction (PRES Conference). Kuching, Sarawak, Malaysia.
- 2015 August 23-27 Aviso, K.B., Sy, C.L., Ubando, A.T., & Tan, R.R. (2015 August 23-27). Target - Oriented Robust Optimization of Polygeneration Systems, 18th Conference of Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction (PRES Conference). Kuching, Sarawak, Malaysia.
- 2015 August 23-27 Aviso, K.B., Promentilla, M.A.B., Razon, L., Sy, C., Ubando, A.T., Yu, K., Chiu, A., & Tan, R.R. (2015 August 23-27). P-graph approach for optimizing industrial symbiosis networks, 18th Conference of Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction (PRES Conference). Kuching, Sarawak, Malaysia.
- 2015 August 23-27 Benjamin M.F., Ubando, A.T., Razon, L., & Tan, R.R. (2015 August 23-27). Analyzing the Disruption Resilience of Microalgal Multi-functional Bioenergy Systems using Dynamic Inoperability Input-output Modeling, 18th Conference of Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction (PRES Conference). Kuching, Sarawak, Malaysia.
- 2015 March 2- 4 Felix, C.B., Ubando, A.T., Mayol, A.P., & Culaba, A.B. (2015 March 2-4). Selection of Potential Algal Cultivation Sites in the Philippines Using Spatial Analytic Hierarchy Process, De La Salle University Research Congress 2015, De La Salle University, Manila Philippines.
- 2015 March 2- 4 Marcelino, M., Maralit, A., Moran, L., Nyanasengeran, K., Pua, T., & Ubando, A.T. (2015 March 2-4). Design and Fabrication of a Vertical Axis Wind Turbine for De La Salle University Grounds, De La Salle University Research Congress 2015, De La Salle

University, Manila Philippines.

- 2015 March 2-4 Ubando, A.T., Maralit, A., Moran, L., Nyanasengeran, K., Pua, T., & Marcelino, M. (2015 March 2-4). Computational Fluid Dynamics Analysis and Optimization of a Savonius Vertical Axis Wind Turbine for De La Salle University Campus, De La Salle University Research Congress 2015, De La Salle University, Manila Philippines.
- 2015 March 2-4 Ducut, M.R.D., Villagracia, A.R., Manrique, R.B., Corpuz, J., Ubando, A.T., Culaba, A.B., Kasai, H., Arboleda Jr., N.B., & David, M.Y. (2015 March 2-4). Examining Water Diffusion Through Phospholipids by Molecular Dynamics, De La Salle University Research Congress 2015, De La Salle University, Manila, Philippines.
- 2015 February 5-7 Ubando, A.T., Tan, R.R., Culaba, A.B., Uy, M., & Cuello, J.L. (2015 February 5-7). Evaluation of Drying and Grinding Process on the Extraction of Algal Protein from *Scenedesmus obliquus* using Taguchi Method, 2015 Annual PAASE Meeting and Symposium, De La Salle University, Manila, Philippines.
- 2015 February 5-7 Ubando, A.T., Lopez, N.S.A., Sumabat, A.K., Biona, J.B.M., Culaba, A.B., Promentilla, M.A.B., Tan, R.R., Santos, B., & Cuello, J.L. (2015 February 5-7). Spatial Analytic Hierarchy Process for Ranking Potential Algal Cultivation Sites in the Philippines, 2015 Annual PAASE Meeting and Symposium, De La Salle University, Manila, Philippines.
- 2015 February 5-7 Biona, J.B.M., Gonzaga, J., Tan, H.C., & Ubando, A.T. (2015 February 5-7). Life Cycle Impact of Paper and Plastic Carrying Bags based on the Philippine Material and Energy Supply Chain, 2015 Annual PAASE Meeting and Symposium, De La Salle University, Manila, Philippines.
- 2014 November 12-16 Ducut, M.R.D., Villagracia, A.R., Corpuz, J., Arboleda, N.B., David, M.Y., Manrique, R.B., Ubando, A.T., & Culaba, A.B. (2014 November 12-16). Molecular dynamics study on the effects of varying temperature and pressure on phosphatidylcholine lipids for microalgae drying, 7th IEEE International Conference Humanoid, Nanotechnology, Information Technology Communication and Control, Environment and Management (HNICEM). Hotel Centro, Puerto Princesa, Palawan, Philippines.
- 2014 November 12-16 Mayol, A.P., Villagracia, A.R., Ubando, A.T., Biona, J.B.M., Ong, H.L., Espiritu, R., Lee Jr., H., Tumlos, R., Arboleda, N.J., & Culaba, A.B. (2014 November 12-16). Investigation of the drying characteristics of microalgae using microwave irradiation, 7th IEEE International Conference Humanoid, Nanotechnology, Information Technology Communication and Control, Environment and Management (HNICEM). Hotel Centro, Puerto Princesa, Palawan, Philippines.
- 2014 October 23-25 Ubando, A.T., Rongullo, C.J., & Maglaya, A.B. (2014 October 23-25). Fuzzy Multi-Objective Function for Designing Polygeneration Plant using Linear Programming Model, 63rd Annual National Convention of the Philippine Society of Mechanical Engineers National Convention, SMX Convention Center, Pasay City, Philippines.
- 2014 October 23-25 Gue, I.H.V., Ubando, A.T., Mayol, A.P., Felix, C.B., & Maglaya, A.B. (2014 October 23-25). Optimization of Transport Routes for Algal Fuels between Desirable Cultivation Sites and Biodiesel Plants using Ant Colony Optimization (ACO) Method, 63rd Annual National Convention of the Philippine Society of Mechanical Engineers National Convention, SMX Convention Center, Pasay City, Philippines.
- 2014 October 23-25 Piseth, S., Ubando, A.T., Augusto, G., & Maglaya, A.B. (2014 October 23-25). The Effects of Inlet Swirl on the Performance of Axial Flow Turbine with Draft Tube Model using

- ANSYS FLUENT, 63rd Annual National Convention of the Philippine Society of Mechanical Engineers National Convention, SMX Convention Center, Pasay City, Philippines.
- 2014 October 23-25 Ubando, A.T., & Maglaya A.B. (2014 October 23-25). Microalgal Industry in the Philippines, 62nd Annual National Convention of the Philippine Society of Mechanical Engineers National Convention, SMX Convention Center, Pasay City, Philippines.
- 2014 June 30 - 2014 July 2 Ubando, A.T., Cuello, J.L., Culaba, A.B., El-Halwagi, M.M., & Tan, R.R. (2014 June 30 - 2014 July 2). Multi-Regional Multi-Objective Optimization of an Algal Biofuel Polygeneration Supply Chain with Fuzzy Mathematical Programming, American Society of Mechanical Engineers (ASME) Digital Collection: ASME 2014 8th International Conference on Energy Sustainability, Boston, Massachusetts, USA.
- 2014 June 16- 18 Ubando, A.T., Cuello, J.L., Culaba, A.B., El-Halwagi, M.M., & Tan, R.R. (2014 June 16-18). Fuzzy multi-objective optimization approach to designing an algal bioenergy park, Algal Biomass Biofuels and Bioproducts, Santa Fe, New Mexico, USA.
- 2014 May 30 - 2014 June 2 Ubando, A.T., Cuello, J.L., Culaba, A.B., Promentilla, M.A.B., & Tan, R.R. (2014 May 30 - 2014 June 2). Multi-Criterion Evaluation of Cultivation Systems for Sustainable Algal Biofuel Production using Analytic Hierarchy Process and Monte Carlo Simulation, International Conference on Applied Energy 2014, Taipei, Taiwan.
- 2014 March 6- 8 Perez, D.V., Villagracia, A.R., David, M.Y., Arboleda Jr., N., Manrique, R., Ubando, A.T., Culaba, A.B., & Kasai, H. (2014 March 6-8). A Computational Study on the effects of Temperature and Osmotic Pressure on Water Extraction on Microalgae using Big Multipole Water - Martini Forcefield on GROMACS Simulation, De La Salle University Research Congress 2014, De La Salle University, Manila Philippines.
- 2014 March 6- 8 Perez, D.V., Villagracia, A.R., David, M., Arboleda, N., Jr., Manrique, R., Ubando, A., Culaba, A., & Kasai, H. (2014 March 6-8). A Computational Study on the effects of Temperature and Osmotic Pressure on Water Extraction on Microalgae using Big Multipole Water-Martini Forcefield on GROMACS Simulation, DLSU Research Congress, De La Salle University, Manila, Philippines.
- 2014 February 3-5 Ubando, A.T., Cuello, J.L., Culaba, A.B., & Tan, R.R. (2014 February 3-5). Allocation of Carbon Footprint in an Integrated Algal Biorefinery using Fuzzy Fractional Programming, 17th Annual Energy, Utility, & Environment Conference & Expo (EUEC) 2014. Phoenix Convention Center, Phoenix, Arizona, USA.
- 2013 December 2-3 Cayamanda, C.D., Tan, R.R., & Ubando, A.T. (2013 December 2-3). Development of P-graph Approach for the Production of Biochar from Biomass and Water Purification, 6th AUN/SEED-Net Regional Conference on Chemical Engineering, Century Park Hotel, Manila City, Philippines.
- 2013 November 15- 21 Ubando, A.T., Culaba, A.B., Aviso, K.B., Ng, D.K.S., & Tan, R.R (2013 November 15-21). An Optimal Design of Polygeneration Supply Chain using Fuzzy Multi-Objective Model with Triple Footprint Constraints, ASME International Mechanical Engineering Congress & Exposition 2013. San Diego, California, USA.
- 2013 October 23-26 Doblada, E.A., Ubando, A.T., & Culaba, A.B. (2013 October 23-26). Convective Drying of Microalgae Chlorella Vulgaris: Instrumentation, Initial Results and Drying Models, 61th Annual National Convention of the Philippine Society of Mechanical Engineers, SMX Convention Center, Pasay City, Philippines.

- 2013 October 21 Ubando, A.T. (2013 October 21). A Life-Cycle Based Optimization Model for Microalgal Multifunctional Bioenergy Systems, Department of Agricultural and Biosystems Engineering Graduate Seminar, Shantz Bldg., University of Arizona, USA.
- 2013 June 28-29 Ubando, A.T., Culaba, A.B., Aviso, K.B., Ng, D.K.S., & Tan, R.R. (2013 June 28-29). Fuzzy Multiple-Objective Model for Optimizing Microalgal Bioenergy Supply Chains Under Triple Footprint Constraints, 2nd Postgraduate Colloquium for Environmental Research 2013 (POCER 2013). Genting International Convention Center, Malaysia.
- 2013 March 13 Doblada, E.A., Ubando, A.T., & Culaba, A.B. (2013 March 13). Evaluation of a Microalgae Solar Dryer for Biodiesel Production: Energy and Exergy Analyses, 80th General Membership Assembly of the NRCP. Pandanggo-Polkabal Hall, Manila Hotel, Manila, Philippines.
- 2013 March 13 Manrique, R.B., Ubando, A.T., Culaba, A.B., Villagracia, A.R.C., David, M.Y., & Arboleda, N.B. (2013 March 13). A Molecular Dynamics Investigation of Microalgae (*Chlorella vulgaris*), 80th General Membership Assembly of the NRCP. Pandanggo-Polkabal Hall, Manila Hotel, Manila.
- 2013 March 7-9 Ubando, A.T., Culaba, A.B., Aviso, K.B., Ng, D.K.S., & Tan, R.R. (2013 March 7-9). Fuzzy Optimal Design Model For Polygeneration Plant With Biochar Production For Carbon Sequestration, De La Salle University Research Congress 2013. DLSU Yuchengco Hall, Manila, Philippines.
- 2013 March 7-9 Doblada, E.A., Ubando, A.T., & Culaba, A.B. (2013 March 7-9). Energy and Exergy Analyses of a Microalgae Solar Dryer for Biodiesel Production, De La Salle University Research Congress 2013. DLSU Yuchengco Hall, Manila.
- 2013 March 7-9 Manrique, R.B., Ubando, A.T., Culaba, A.B., Villagracia, A.R.C., David, M.Y., & Arboleda, N.B. (2013 March 7-9). Modelling of Microalgae Drying Process Using Computational Methods: A First Step, De La Salle University Research Congress 2013. DLSU Yuchengco Hall, Manila.
- 2013 February 12-13 Ubando, A.T., Culaba, A.B., Aviso, K.B., & Tan, R.R. (2013 February 12-13). An Optimal Design and Allocation of Footprints of a Trigeneration Plant using Fuzzy Fractional Programming, 5th AUN/SEED-Net Regional Conference in Mechanical and Aerospace Engineering. Asia Hotel, Bangkok, Thailand.
- 2012 November 19-22 Doblada E.A., & Ubando, A.T. (2012 November 19-22). Energy and Exergy Analyses of Solar dryer for Microalgae to Biofuel Production: A Review, 8th Engineering Research and Development for Technology Conference, Cebu City, Philippines.
- 2012 October 24-25 Ubando, A.T., Kasivisvanathan, H., Culaba, A.B., Tan, R.R., & Ng, D.K.S. (2012 October 24-25). Design of Polygeneration Plants using Robust Optimization Approach, 60th National Convention of the Philippine Society of Mechanical Engineers, SMX Convention Center, Pasay City, Philippines.
- 2012 August 28-30 Ubando, A.T., Culaba, A.B., & Tan, R.R. (2012 August 28-30). A Simultaneous Design and Carbon Footprint Allocation Model for Trigeneration System Using Fuzzy Fractional Programming, 5th Pacific-Asia Conference on Mechanical Engineering, Technological University of the Philippines, Manila, Philippines.
- 2012 July 31 Ubando, A.T., Culaba, A.B., & Biona, J.B.M. (2012 July 31). Biomass Boiler Potential in the Philippines, Regional Awareness-raising Workshop of the Project: "Demonstration of best available techniques and best environmental practices (BAT & BEP) in fossil fuel-fired

- utility and industrial boilers in response to the Stockholm Convention on Persistent Organic Pollutants (POPs)", DENR and UNIDO, Quest Hotel, Cebu, Philippines.
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Animal Physiology

Cattle

Animal Husbandry

Feeding

Insulin

Genomic DNA Isolation

Microsatellites

Leptin

Polymorphism

Rumen
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Vitellogenins
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Employment

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Association Membership

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Honors / Awards

Enhance Creative Writing Research Grant, University of the Philippines System
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2016 January
UPLB Centennial Professorial Lecture Award, University of the Philippines Los Baños
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Outstanding Researcher Award - Senior Category, College of Agriculture, University of the Philippines Los Baños 2013
UP Scientist 1, University of the Philippines Scientific Productivity Award 2013 January
Distinguished Animal Scientist Award, Philippine Society of Animal Science
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Fields of Specialization	
Cyclic Voltammetry Electrodeposition Electroanalytical Chemistry Amperometry Electrochemical Quartz Crystal Microbalance	
Publications	
2016	Vergara, A.V., Pernites, R.B., Tiu, B.D.B., de Leon, A.C.C., Mangadlao, J.D., Binag, C.A., & Advincula, R.C., Capacitive Detection of Morphine via Cathodically Electropolymerized, Molecularly Imprinted Poly(p-aminostyrene) Films. <i>Macromolecular Chemistry and Physics</i> , 2016, 217(16):1810-1822.
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2012	Vergara, A.V., Pernites, R.B., Pascua, S., Binag, C.A., & Advincula, R.C., QCM sensing of a chemical nerve agent analog via electropolymerized molecularly imprinted polythiophene films. <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> , 2012, 50(4):675-685. Santos, C.M., Cui, K.M., Ahmed, F., Tria, M.C.R., Vergara, R.A.M.V., de Leon, A.C., Advincula, R.C., & Rodrigues, D.F., Bactericidal and Anticorrosion Properties in PVK/MWNT Nanocomposite Coatings on Stainless Steel. <i>Macromolecular Materials and Engineering</i> , 2012, 297(8):807-813. Ahmed, F., Santos, C.M., Vergara, R.A., Tria, M.C., Advincula, R., & Rodriguez, D.F., Antimicrobial Applications of Electroactive PVK-SWNT Nanocomposites. <i>Environmental Science and Technology</i> , 2012, 46(3):1804-1810.
2011	Santos, C.M., Tria, M.C.R., Vergara, R.A.M.V., Cui, K.M., Pernites, R., & Advincula, R.C., Films of Highly Disperse Electrodeposited Poly(N-vinylcarbazole) - Graphene Oxide Nanocomposites. <i>Macromolecular Chemistry and Physics</i> , 2011, 212(21):2371-2377. Pernites, R., Vergara, A., Yago, A., Cui, K., & Advincula, R., Facile approach to graphene oxide and poly(N-vinylcarbazole) electro-patterned films. <i>Chemical Communications</i> , 2011, 47(35):9810-9812. Santos, C.M., Tria, M.C., Vergara, R.A.M.V., Ahmed, F., Advincula, R.C., & Rodrigues, D.F., Antimicrobial graphene polymer (PVK-GO) nanocomposite films. <i>Chemical Communications</i> , 2011, 47(31):8892-8894.

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Sex Female

Organizational Affiliations

Assistant Professor, Institute of Biology, University of the Philippines, Diliman, Quezon City, Philippines

Fields of Specialization

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Association Membership

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Publications

- 2018 Mathay, A.C.M.T.A., Dimasupil, M.A.Z., Rivera, W.L., & Vital, P.G., Bacteriological screening of fresh and fresh-cut fruits vended in select open air markets and supermarkets in Metro Manila, Philippines. *Philippine Science Letters*, 2018, 11:37-42.
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Organizational Affiliations

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Education

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Bachelor of Science in Biology, Major in Ecology, University of the Philippines Los Baños, College, Laguna 4031, Philippines 2001

Fields of Specialization

Marine Biology and Fisheries
Marine Ecology
Biological Oceanography
Ecological Modelling
Dynamics of Marine Systems
Harmful Algal Bloom
Macroalgae
Agent-Based Modeling
Phytoplankton Ecology
Systems Biology
Oceanography
Aquatic Ecosystems
Marine Environment
Marine Ecology
Ecosystem Ecology
Marine Biology

Employment

Assistant Professor, Marine Science Institute, University of the Philippines, 2008 June-Present

Research Assistant, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 2004 May-2007 December

Publications

- 2018 Yñiguez, A.T., Maister, J., Villanoy, C.L., Deauna, J.D., Peñaflor, E., Almo, A., David, L.T., Benico, G.A., Hibay, E., Mora, I., Arcamo, S., Relox J., & Azanza, R.V., Insights into the dynamics of harmful algal blooms in a tropical estuary through an integrated hydrodynamic-Pyrodinium-shellfish model. *Harmful Algae*, 2018, 80:1-14.
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