

---

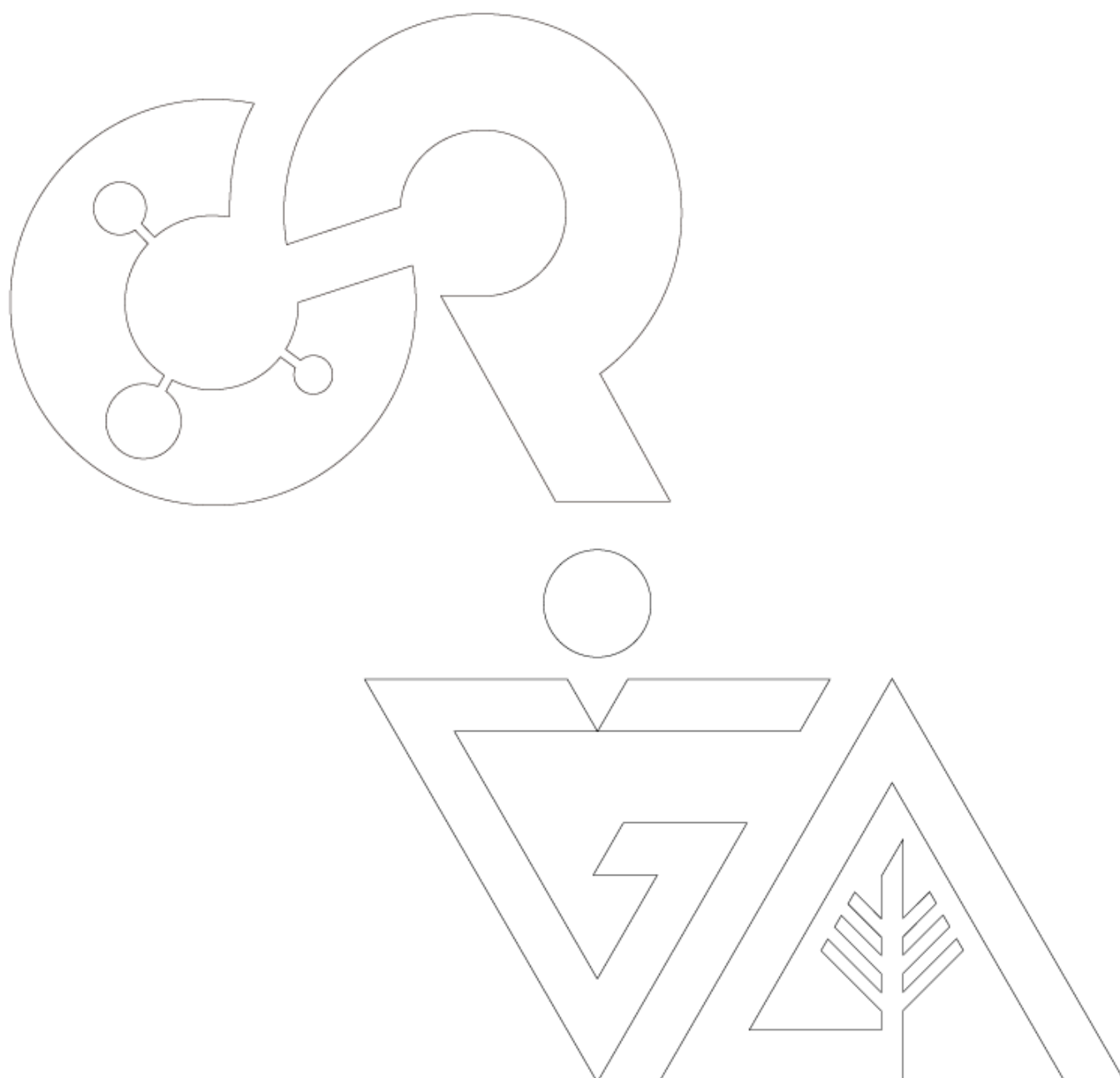
# EVERGREEN

**Volume.07**

Issue. 02 June 2020

Joint Journal of  
Novel Carbon Resource Sciences & Green Asia Strategy

---



**Editorial Board for**  
**Evergreen – Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy**

**Editor-in-Chief**

Jun Tanimoto

**Executive Editor**

Kyaw Thu

**Subject Editors**

Andrew Mark Spring, Osama Eljamal, Hiroshi Furuno, Michitaka Ohtaki, Jin Miyawaki  
Kiichi Hamamoto, Naoji Yamamoto

**Regional Editors**

Nasruddin, Agung Tri Wijayanta, Muhammad Sultan

**Secretary**

Mieko Inoue

**Honorary Advisor**

Bidyut Baran Saha

**Editorial Board**

Akira Harata, Aya Hagishima, Kazuhide Ito, Seigi Mizuno

**Evergreen – Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy**  
**Volume 7 Issue 2 (June 2020)**

Published by  
Transdisciplinary Research and Education Center for Green Technologies, Kyushu University  
6-1 Kasuga-koen, Kasuga, Fukuoka 816-8580 Japan  
Tel: +81-92-583-7823  
Fax: +81-92-583-8909  
Journal Website: [http://www.tj.kyushu-u.ac.jp/leading/en/c\\_publication/evergreen.php](http://www.tj.kyushu-u.ac.jp/leading/en/c_publication/evergreen.php)  
E-mail: [evergreen@ga.kyushu-u.ac.jp](mailto:evergreen@ga.kyushu-u.ac.jp)

Copyright: 2020 by  
Transdisciplinary Research and Education Center for Green Technologies, Kyushu University  
All rights reserved. ISSN: 2189-0420 (Print) ISSN: 2432-5953 (Online)

# Evergreen

## Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy

Volume 07, Issue 02, June 2020

---

---

### CONTENTS

<b>Uelun-Ujin Purev, Aya Hagishima</b> A Field Survey of Traditional Nomadic Dwelling Gers Used as Urban Habitats in Ulaanbaatar, Mongolia	155
<b>Jaedeok Ko, Nobuo Takata, Kyaw Thu, Takahiko Miyazaki</b> Dynamic Modeling and Validation of a Carbon Dioxide Heat Pump System	172
<b>Keishi Oyama</b> Applicability Estimation of Bioleaching into Copper Mining Industry: Comparison between Mining-Developed and Developing Countries	195
<b>Ashish Kumar Srivastava, Shashi Prakash Dwivedi, Nagendra Kumar Maurya, Manish Maurya</b> 3D Visualization and Topographical Analysis in Turning of Hybrid MMC By CNC Lathe SPRINT 16TC Made of BATLIBOI	202
<b>Shailendra Singh Chauhan, S C Bhaduri</b> Structural analysis of a Four-bar linkage mechanism of Prosthetic knee joint using Finite Element Method	209
<b>Dalina Daud, Syee Chee Yang, Cynthia C. Balaja, Fairuzeta Ja'afar, Hartini M. Yasin, Eny Kusriani, Wuwuh W. Prihandini, Anwar Usman</b> Radical Scavenging Activity Assay and Red Fluorescence Microscopy Studies: Antioxidant Properties of Selected Young and Mature Leaves for Application in Pharmaceutical Industry ★	216
<b>Yohanes Gunawan, Nandy Putra, Eny Kusriani, Imansyah Ibnu Hakim, Muhamad Dicky Hans Setiawan</b> Study of heat pipe utilizing low-temperature geothermal energy and Zeolite-A for tea leaves withering process ★	221
<b>Manel AYADI, Sylvestre AHOUE, Sary AWAD, Manef ABDERRABBA, Yves ANDRES</b> Production of Biogas from Olive Pomace ★	228
<b>Rizky Ruliandini, Nasruddin, Takashi Tokumasu</b> Assessing hBN Nanoparticles Stability in Trimethylolpropane Triester Based Biolubricants Using Molecular Dynamic Simulation ★	234
<b>Mohammed Ali Berawi, Van Basten, Yusuf Latief, Igor Crévits</b> Development system on integrated regional building permit policy to enhance green building life cycle achievement ★	240

<b>Mohammed Ali Berawi, Sutan Akbar Onggar Siahaan, Gunawan, Perdana Miraj, Pekka Leviakangas</b> Determining the Prioritized Victim of Earthquake Disaster Using Fuzzy Logic and Decision Tree Approach ★	.....246
<b>Mohammed Ali Berawi, Alexander Darmawan, Gunawan, Perdana Miraj, Hamzah Abdul Rahman</b> Land Value Capture: Defining Crucial Variables Difference-in-Differences Model for Residential Properties Surrounding MRT Jakarta Stage I ★	..... 253
<b>Muhamad Fuad Syahrudin, Muhammad Arif Budiyanto, Muhammad Aziz Murdianto</b> Analysis of the Use of Stern Foil on the High Speed Patrol Boat on Full Draft Condition ★	..... 262
<b>Lasta Azmillah Akbar, Dwi Marhaendro Jati Purnomo, Randitia Andika Putra, Raden Bregas Dwi Hatmojo, Hafizha Mulyasih, Yulianto Sulistyo Nugroho</b> Method development of measuring depth of burn using laser ranging in laboratory scale ★	..... 268
<b>Shafira Nabilla, Sesia Fitri Anisa, Kania Zara, Setijo Bismo</b> Fatty Acid Methyl Ester Synthesis in the Cold Plasma Reactor using CO <sub>2</sub> and Steam Mixture ★	..... 275
<b>Nur Izzah Iwanina Zamri, Siti Lailatul Noramalina Zulmajdi, Eny Kusriani, Karina Ayuningtyas, Hartini M. Yasin, Anwar Usman</b> Rhodamine B Photocatalytic Degradation using CuO Particles under UV Light Irradiation for Applications in Industrial and Medical Fields ★	..... 280
<b>Ibrahim Harya Dwirekso, Muhammad Ibadurrohman, Slamet</b> Synthesis of TiO <sub>2</sub> -SiO <sub>2</sub> -CuO Nanocomposite Material and Its Activities for Self-cleaning ★	..... 285
<b>Eny Kusriani, Virleenda. M. Setianingrum, Nur Alfin Hidayati, Mazidah Mamat, Yoki Yulizar, Anwar Usman</b> Fluorescence Enhancement of Samarium Picrate Tetraethylene Glycol Micro-sized complex doped in Poly (methyl methacrylate) ★	..... 292
<b>Wayan Nata Septiadi, Ketut Astawa, I Gusti Ayu Pristha Arvikadewi, David Febraldo, Gerardo Janitra Puriadi Putra</b> Boiling Phenomenon of Graphene Nano-Coating Wick Heat Pipes ★	..... 297
<b>Gibranadhi, Meizka Sungkar, Tania Surya Utami, Rita Arbianti, Heri Hermansyah</b> The Production of Bioinsecticide Based From Pong-Pong Fruit Seed Extract by Ultrasonic Waved Extraction Using NADES Solvent ★	..... 303
<b>Gde Dharma Nugraha, Budi Sudiarto, Kalamullah Ramli</b> Machine Learning-based Energy Management System for Prosumer ★	..... 309

★ the 4th International Tropical Renewable Energy Conference 2019 (i-TREC2019)