

Worawat Poltabtim

(นาย วรวัฒน์ พลทับทิม)



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EDUCATION BACKGROUND

- 2021 – 2024** **Hirosaki University**, Aomori, Japan.
Doctor of Philosophy (Ph.D.) in Radiological Health Sciences, GPA: 4.00
Thesis title: “Development and feasibility study using Gafchromic XR-QA2 film as a novel passive radon measurement technique.”
Thesis supervisor: Professor Shinji Tokonami
- 2018 - 2020** **Tsinghua University**, Beijing, China.
Master’s degree (M.Eng.) in Nuclear Energy and Nuclear Technique Engineering, GPA: 3.60
Department of Engineering Physics,
Thesis title: “Experimental Investigation of the Mechanism of Critical Heat Flux on Downward Facing Rough Surface of Reactor Core.”
Thesis supervisor: Assoc. Prof. YU Jiyang, and Dr. Zhang Huiyong (Senior Engineer at CNPRI Co Ltd).
- 2014 - 2018** **Kasetsart University**, Bangkok, Thailand.
Bachelor’s degree (B.Sc.) with 1st Class Hons in Nuclear Science, GPA: 3.56
Department of Applied Radiation and Isotopes, Faculty of Science.
Thesis title: “Properties of lead-free gamma ray shielding materials from metal oxide/EPDM rubber composites.”
Thesis supervisor: Assoc. Prof. Dr. Kiadtisak Saenboonruang.

INTERNSHIP EXPERIENCE

- 2019.10 - 2019.12** **China Nuclear Power Technology Research Institute (CNPRI)**,
CGN company, Shenzhen, China.
Outline: performed the experiments to study the mechanism of critical heat flux on downward facing rough surface plates of stainless steel (SS 316) and carbon steel (SA 508-III) under flow boiling and pool boiling experiments with deionized water and impurity water.
- 2017.8 - 2017.11** **National Science and Technology Development Agency (NSTDA)**, Thailand.
Outline: collected and analyzed data about the discrimination of fruit ripening using NIR spectroscopy technique.

PUBLICATIONS

1. **W. Poltabtim**, C. Kranrod, Y. Omori, S. Musikawan, M. Hosoda, S. Tokonami, "Development and a feasibility study using Gafchromic XRQA2 film as a novel passive radon measurement technique", *Radiation Measurements*, (2023), 168(4):107012.
2. S. Tokonami, C. Kranrod, P. Kazymbet, Y. Omori, M. Bakhtin, **W. Poltabtim**, S. Musikawan, R. Pradana, Y. Kashkinbayev, K. Zhumadilov, A. Pirmanova, M. Aumalikova, Z. Isa, A. Sakaguchi, H. Sato and M. Hoshi, "Residential radon exposure in Astana and Aqsu, Kazakhstan", *Journal of Radiological Protection*, (2023), 43(2):023501.
3. **W. Poltabtim**, S. Musikawan, A. Thumwong, Y. Omori, C. Kranrod, M. Hosoda, K. Saenboonruang, and S. Tokonami, "Estimation of Ambient Dose Equivalent Rate Distribution Map Using Walking Survey Technique in Hirosaki City, Aomori, Japan", *International Journal of Environmental Research and Public Health*, (2023), 20(3):2657.
4. **W. Poltabtim**, C. Kranrod and S. Tokonami, "An Overview of Passive-Type Detectors for Radon and Its Progeny Measurement", *Radiation Environment and Medicine*, (2022), 11(2).
5. **W. Poltabtim**, A. Thumwong, E. Wimolmala, C. Rattanapongs, S. Tokonami, T. Ishikawa and K. Saenboonruang, "Dual X-ray- and Neutron-Shielding Properties of Gd₂O₃/NR Composites with Autonomous Self-Healing Capabilities", *Polymers*, (2022), 14(21):4481.
6. A. Thumwong, **W. Poltabtim**, P. Kerdsang and K. Saenboonruang, "Roles of Chitosan as Bio-Fillers in Radiation-Vulcanized Natural Rubber Latex and Hybrid Radiation and Peroxide-Vulcanized Natural Rubber Latex: Physical/Mechanical Properties under Thermal Aging and Biodegradability", *Polymers*, (2021), 13.
7. **W. Poltabtim**, E. Wimolmala, T. Markpin, N. Sombatsompop, V. Rosarpitak and K. Saenboonruang, "X-ray Shielding, Mechanical, Physical, and Water Absorption Properties of Wood/PVC Composites Containing Bismuth Oxide", *Polymers*, (2021), 13, 2212.
8. K. Saenboonruang, **W. Poltabtim**, A. Thumwong, T. Pianpanit and C. Rattanapongs, "Rare-Earth Oxides as Alternative High-Energy Photon Protective Fillers in HDPE Composites: Theoretical Aspects", *Polymers*, (2021), 13, 1930.
9. **W. Poltabtim**, D. Toyen and K. Saenboonruang, "Theoretical Determination of High-Energy Photon Attenuation and Recommended Protective Filler Contents for Flexible and Enhanced Dimensionally Stable Wood/NR and NR Composites". *Polymers*, (2021), 13, 869.
10. **W. Poltabtim**, D. Toyen and K. Saenboonruang, "Comparative neutron-shielding properties of metal oxide/HDPE composites using a Monte Carlo Code of PHITS", *IOP Conference Series Materials Science and Engineering*, (2019), vol.526.
11. **W. Poltabtim** and K. Saenboonruang, "Assessment of Activity Concentrations and their Associated Radiological Health Risks in Commercial Infant Formulas in Thailand", *Chiang Mai Journal of Science*, (2019), 46(4), 778-786.
12. **W. Poltabtim**, E. Wimolmala and K. Saenboonruang, "Properties of lead-free gamma-ray shielding materials from metal oxide/EPDM rubber composites", *Radiation Physics and Chemistry*, (2018), vol.15, pp.1-9.
13. D. Toyen, A. Rittirong, **W. Poltabtim** and K. Saenboonruang, "Flexible, lead-free, gamma-shielding materials based on natural rubber/metal oxide composites", *Iranian Polymer Journal*, (2017), vol.27(1).

AWARD

18 August 2017

Article: Gamma ray shielding materials from Bismuth oxide and natural rubber composites.

Award: Invention (Silver award)

Doner: Graduate school, Maejo University, Thailand.