



รศ.ดร.ทองใส จามนงการ
Assoc. Prof. Tongchai Jamnongkan
E-mail: jamnongkan.t@ku.ac.th

Education

- PhD. (Organic Materials Engineering), Yamagata University, Japan, 2558
- วท.ม. (วิทยาศาสตร์พอลิเมอร์), มหาวิทยาลัยบูรพา, ไทย, 2552
- วท.บ. (เคมี), มหาวิทยาลัยบูรพา, ไทย, 2548

Research

The research collage includes several key areas:

- Hydrogel Synthesis:** A reaction scheme showing the synthesis of a Curcumin-loaded PBAE hydrogel from PEGDA, Curcumin, and Cystamine. The process involves vortexing and incubating at 37 °C for 2 hours. The resulting hydrogel exhibits redox- and pH-responsive degradation behavior.
- Material Processing:** A diagram showing the melt blowing process for PLA, PBAE, CaCO₃, and MBAX. It includes a DSC thermogram with peaks labeled Tm1, Tm2, Tm3, Tm4, and Tm5, and SEM images of fibers before and after overall migration, with residues shown.
- 3D Printing:** A schematic of a 3D printer setup for material analysis manufacturing. It shows the process from Durian husk waste (via EOH activation to AC) and PLA to a 3D printer, which is connected to a single screw extruder and a cooling bath.
- Biocomposites:** A diagram showing the preparation of Tough DN (Durable Network) from salt crystals and methylated chitosan, followed by curing and mixing for the 2nd network.
- Analysis:** Includes EDX Elemental analysis graphs, a graph of Tensile Stress (MPa) vs. Tensile strain (%), and a graph of Adsorption capacity (mg/g) vs. Time (min) for bio-adsorbents.
- Other:** A photograph of a 3D printed cylinder with the text "Eco Friendly" overlaid, and SEM images of fiber networks.

3 pillars area of research:

- Polymers and biocomposites
- Materials synthesis and processing
- Rheology of soft materials

More information, please scan

