

Research Centre for Resources Engineering towards Carbon Neutrality (RCRE)

碳中和資源工程研究中心



Vision:

- Establish The Hong Kong Polytechnic University as a forefront global research centre in solid waste recycling issues.
- Support the Hong Kong Government's policy in achieving carbon neutrality in 2050 and minimizing waste required to be disposed of at landfills.
- Support the Hong Kong and Central Governments initiatives in promoting Hong Kong and the Greater Bay Area as models of Resources Engineering towards Circular Economy.



Director's message:

"RCRE aspires to establish PolyU as a forefront global research centre in solid waste recycling issues to help reduce carbon dioxide emissions for achieving carbon neutrality."



Research highlights:

- Policy and social perspectives
- Valorization of algae by high-throughput-high-capacity centrifugation
- CO₂ sequestration and high value products derived from construction and demolition waste
- Biorefinery for biofuel and other valuable products from organic waste
- Food and yard waste to value-added chemicals and multi-functional biochar
- Recycling of waste for asphalt application
- Recycling of waste glass
- Precious and rare earth metals (REM) recovery
- Recycling of incineration residues



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