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Conversion of *Undaria Pinnatifida* Residue to Glycolic Acid with Recyclable Methylamine in Low Temperature Hydrothermal Liquefaction

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Abstract

The conversion of *undaria pinnatifida* residue to glycolic acid was carried out using methylamine as catalyst by hydrothermal method at relatively low temperature. GC-MS and HPLC were used to identify the composition of bio-oil and liquid products which provide the knowledge of the chemical reaction pathways of the hydrothermal liquefaction. The main liquid product was organic acid which contained

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