Electronic Supplementary Material (ESI) for Sustainable Energy & Fuels.

Supplementary Information

Study on hydrothermal liquefaction for cell disruption and lipid extraction from *Rhodosporidium toruloides*

Yuwei Chen[1,2,3,#], Qitian Huang[4,#], Jun Ye[1,2*], Junming Xu[1,2],
Jie Chen[1,2], Yigang Wang[1,2], Xiaoan Nie[1,2*]

[1] Institute of Chemical Industry of Forest Products, Chinese Academy of Forestry, Key Lab. of Biomass Energy and Material, Jiangsu Province, Nanjing, 210042, P. R. China

[2] Co-Innovation Center of Efficient Processing and Utilization of Forest Resources, Nanjing Forestry University, Nanjing 210037, P. R. of China

[3] Yancheng Institute of Technology, Yancheng, 224051, P. R. of China

[4] Laboratory of Biotechnology, Dalian Institute of Chemical Physics, CAS, Dalian 116023, China

[#] These authors contributed equally to this work.

[*] Corresponding author: Jun Ye, yejun_2007@163.com; Xiaoan Nie, niexiaoan@icifp.cn

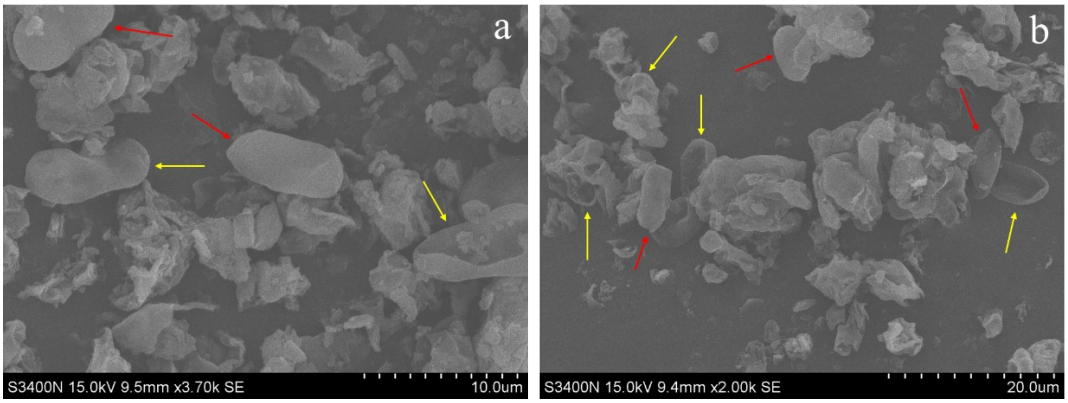

Figure S1. (a) (b) Microscopic Morphology of Solids after HTL (140℃, 10/100 g/mL, 60min, ethanol) from different samples. Red arrows point intact cells, yellow arrows point disrupted cells.

Figure S2. Solids after HTL in different temperatures (10/100 g/mL, 60min, ethanol)

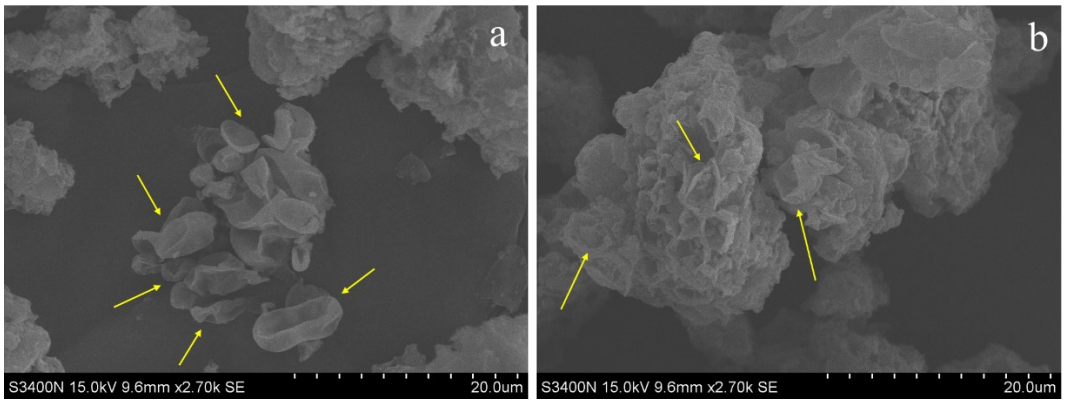

Figure S3. (a) (b) Microscopic Morphology of Solids after HTL (180℃, 10/100 g/mL, 60min, ethanol) from different samples. Yellow arrows point disrupted cells.

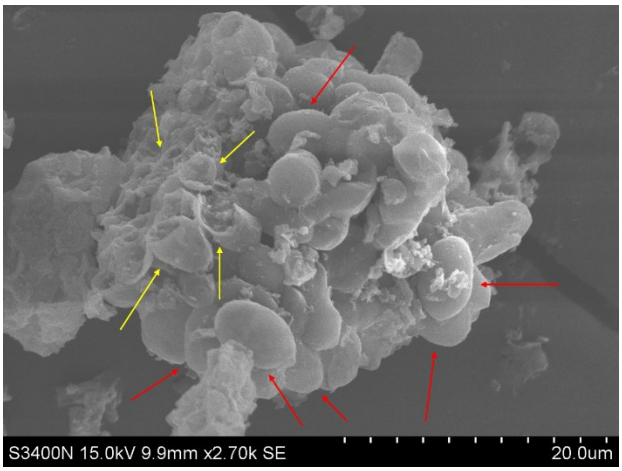

Figure S4. Microscopic Morphology of Solids after HTL (160℃, 5/100 g/mL, 60min, n-hexane) from different samples. Red arrows point intact cells, yellow arrows point disrupted cells.

Table S1 Crude fat in solids from different temperatures

Temperature (℃)	140	160	180
Crude fat (%)	17.55±0.10	14.05±0.23	13.56±0.15