1.

2017 8 15 9 12

NANOTEC

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3.

8 15

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9 12

4.

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5.

5.1.

CNT

CNT

MWCNT

5.2.

Fig. 1 Table 1
MWCNT Bayer BAYTUBES C 70 P MWCNT MWCNT
2 g MWCNT 40 mL
200 °C 8
MWCNT
pH 90 °C
24 MWCNT MWCNT
(A-MWCNT)
MWCNT MWCNT

2 MPa ( )

10 °C /min
2 4
(TOC)
(HPLC)
Fig. 2 HPLC

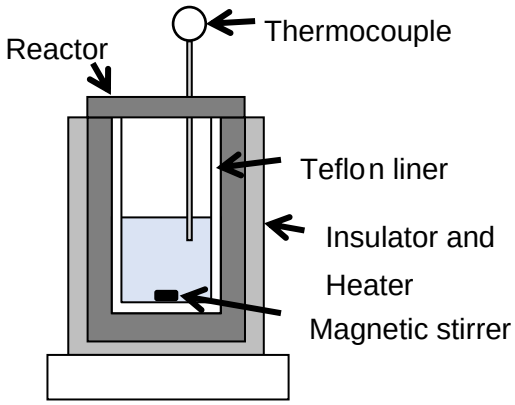


Fig. 1 Experimental apparatus

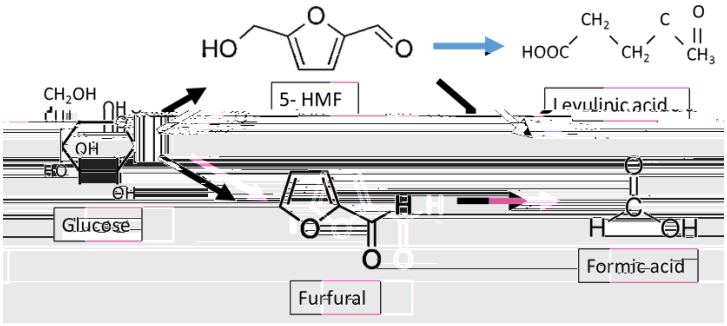
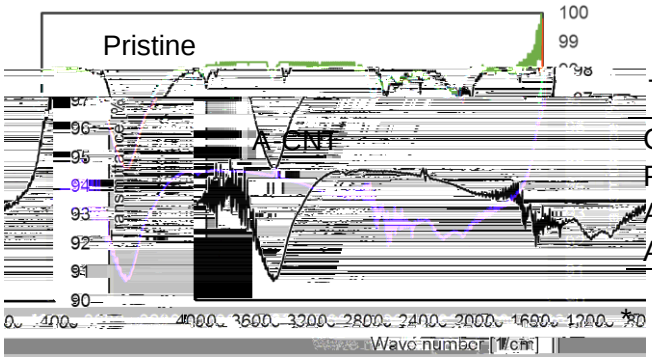


Fig.2 Reaction pathway of glucose

Table 1 Experimental condition

Feedstock	Glucose 0.2 mol/dm^3
Temperature	140, 150, 160, 200 °C
Pressure	2 MPa
Sampling time	0, 2, 4, 6 h
Catalyst	Non, Pristine MWCNT, Acid treated MWCNT (A-MWCNT)
Catalyst amount	0.24 g



Fig, 5 FT-IR result

Table 4 Acid site density result

CNT type	Acid site density
Pristine MWCNT	0.4845 mol/g_{cat}
A-MWCNT (2017/9/8)	0.0167 mol/g_{cat}
A-MWCNT (2017/9/10)	-0.2167 mol/g_{cat}

6.

7.

Charinpanitkul Tawatchai

Kuboon Sanchai