

# Far infrared radiated energy-efficient rapid one-pot green hydrolysis of waste watermelon peel: optimization and heterogeneous kinetics of glucose synthesis

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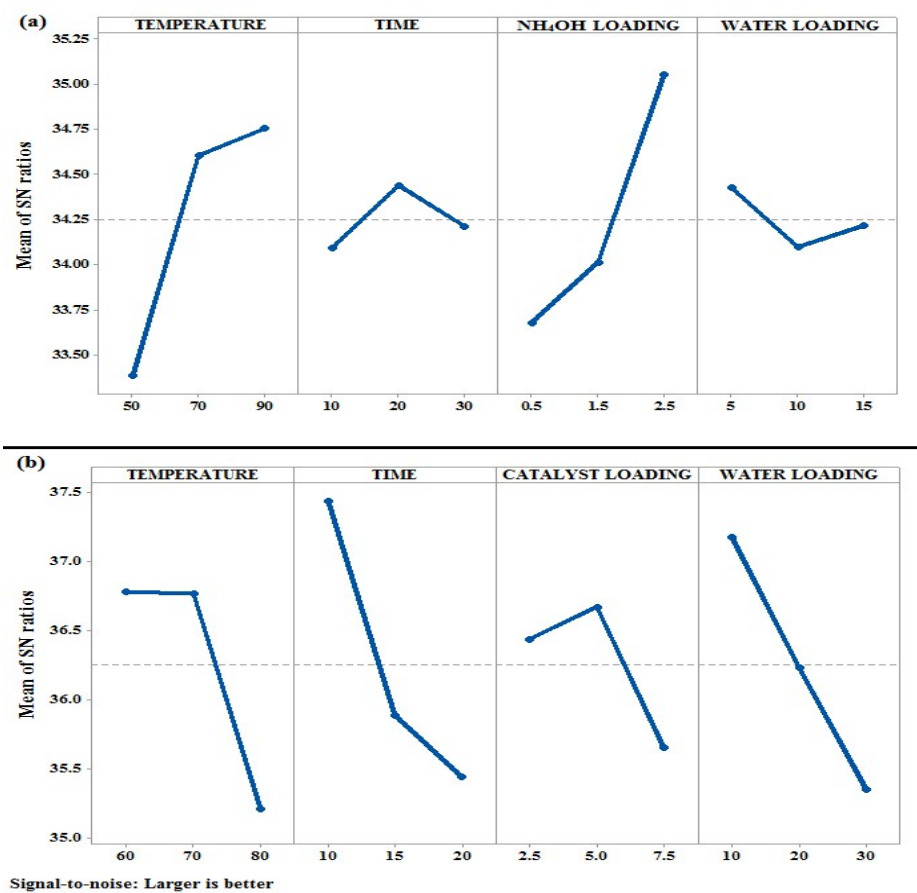
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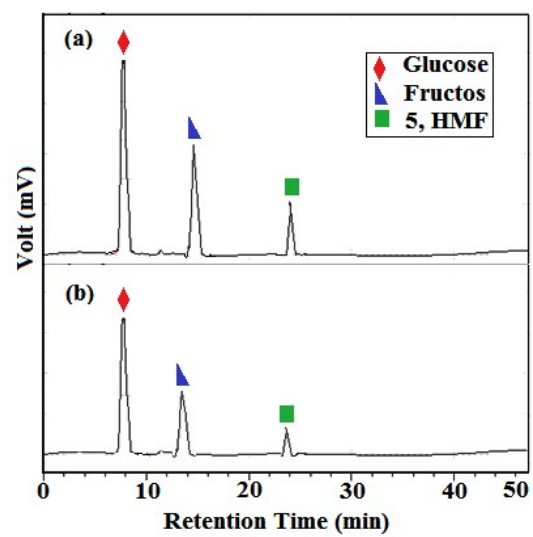
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**Table S1:** Effects of process variables on one-pot WWP pretreatment-hydrolysis through analysis of variance (ANOVA)

| WPP pretreatment    |    |               |                      |         |         | PWPP hydrolysis      |    |               |                      |         |         |
|---------------------|----|---------------|----------------------|---------|---------|----------------------|----|---------------|----------------------|---------|---------|
| Source              | DF | Sum of square | Adjusted mean square | F value | p-value | Source               | DF | Sum of square | Adjusted mean square | F value | P value |
| $\Theta_T$ (°C)     | 1  | 94.43         | 94.43                | 8.95    | 0.04    | $\Theta_T$ (°C)      | 1  | 247.69        | 247.69               | 8.31    | 0.04    |
| $\Theta_t$ (min)    | 1  | 0.26          | 0.26                 | 0.02    | 0.88    | $\Theta_t$ (min)     | 1  | 383.15        | 383.15               | 12.86   | 0.02    |
| $\Theta_{np}$ (w/w) | 1  | 103.66        | 103.66               | 9.82    | 0.04    | $\Theta_{pc}$ (wt.%) | 1  | 79.24         | 79.24                | 2.66    | 0.18    |
| $\Theta_{wp}$ (w/w) | 1  | 4.63          | 4.63                 | 0.44    | 0.54    | $\Theta_{wp}$ (w/w)  | 1  | 282.91        | 282.91               | 9.50    | 0.04    |
| Error               | 4  | 42.21         | 10.55                |         |         | Error                | 4  | 119.16        | 29.79                |         |         |
| Total               | 8  | 245.19        |                      |         |         | Total                | 8  | 1112.15       |                      |         |         |



**Fig. S1.** Individual effects of each process variable on one-pot (a) Pretreatment; (b) Hydrolysis of WWP in FIRRAR at optimal condition.



**Fig. S2.** HPLC analyses of **hydrolysates obtained** by employing (a) FIRRAR; (b) CTSAR .