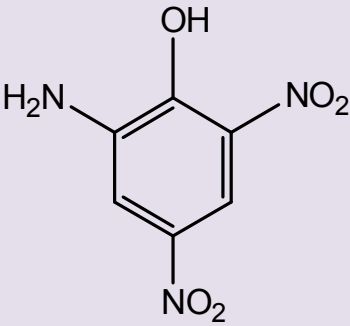
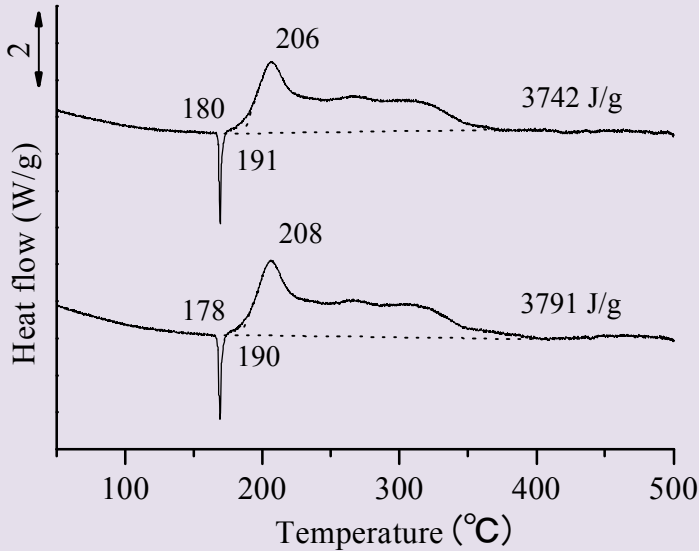
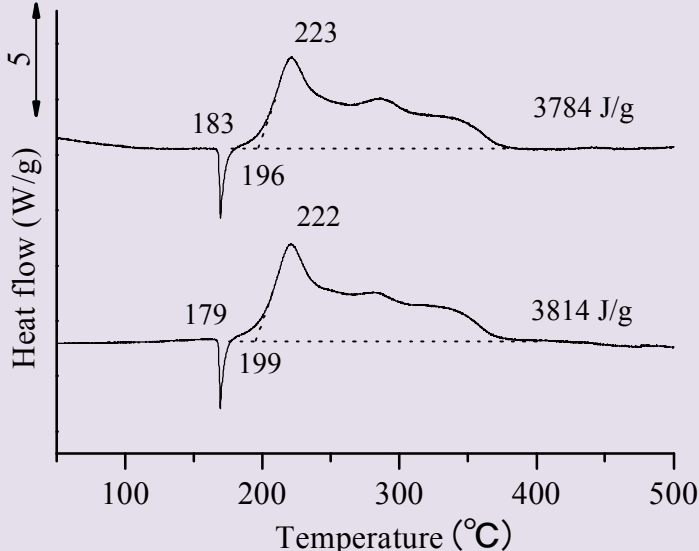
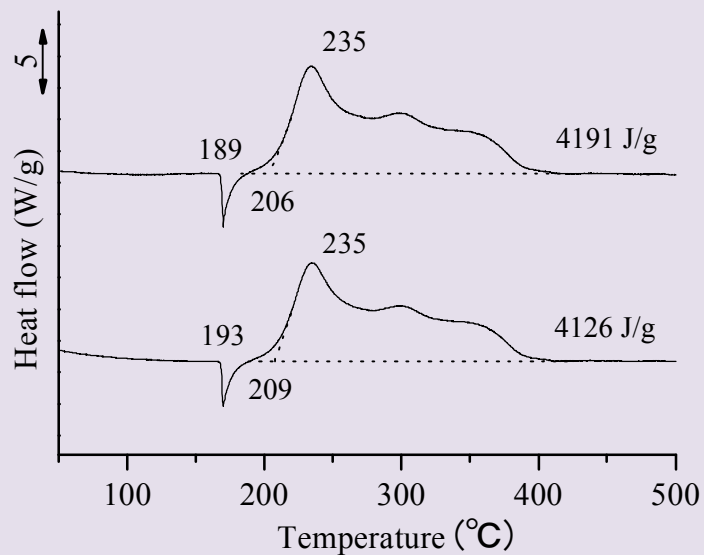


| Picramic Acid   | NH <sub>2</sub> C <sub>6</sub> H <sub>2</sub> (NO <sub>2</sub> ) <sub>2</sub> OH PRA   |
|---|--|
|    | DSC device: DSC8270B<br>Rigaku Corp.<br>dT/dt: 2, 5, 10, 20 K/min<br>Atmosphere: Air<br>Vesel: pressure vessel (SUS)<br>Rigaku Corp.<br>Sample: TGI (> 98.0%)  |
| a) 2 K/min <span style="float: right;">TGI: 東京化成工業株式会社</span>                       |  |
|   | <p style="text-align: center;">&lt;Average&gt;</p> <p>T<sub>a</sub>: 179 °C<br/>                     T<sub>o</sub>: 191 °C<br/>                     T<sub>top</sub>: 207 °C<br/>                     Q<sub>DSC</sub>: 3767 J/g</p> |
| b) 5 K/min  |  |
|  | <p style="text-align: center;">&lt;Average&gt;</p> <p>T<sub>a</sub>: 181 °C<br/>                     T<sub>o</sub>: 198 °C<br/>                     T<sub>top</sub>: 223 °C<br/>                     Q<sub>DSC</sub>: 3799 J/g</p> |

c) 10 K/min



< Average >

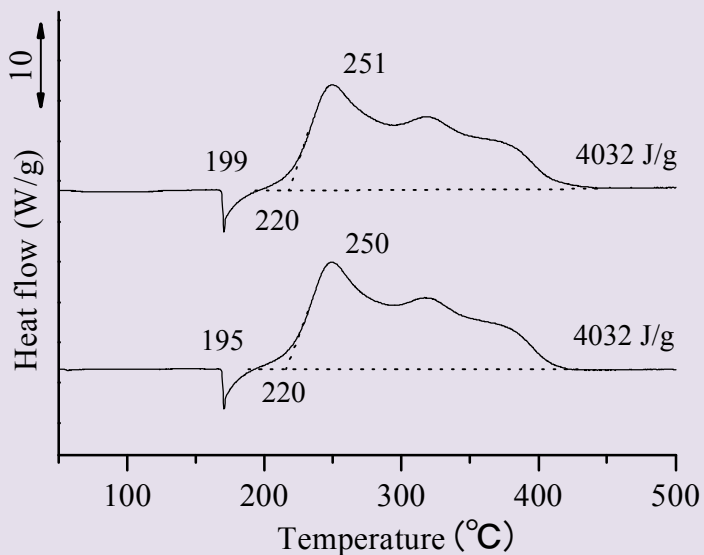
$T_a$  : 191 °C

$T_o$  : 208 °C

$T_{top}$  : 235 °C

$Q_{DSC}$  : 4159 J/g

d) 20 K/min



< Average >

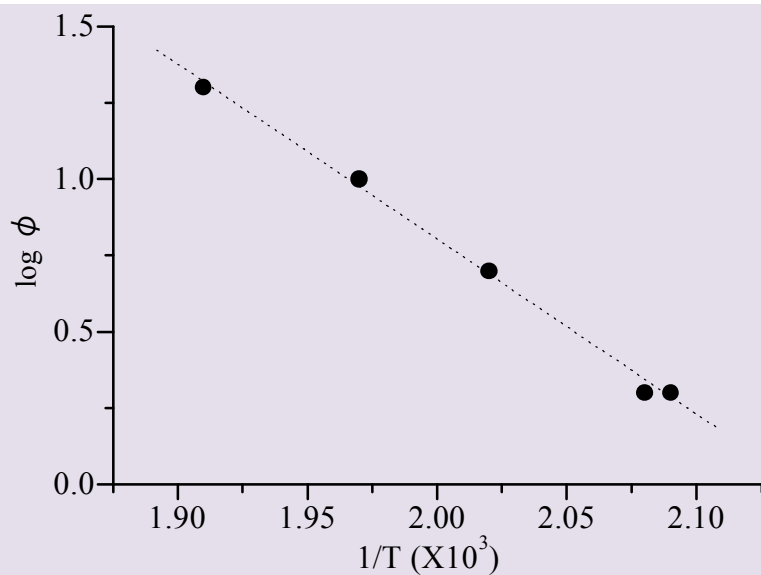
$T_a$  : 197 °C

$T_o$  : 220 °C

$T_{top}$  : 251 °C

$Q_{DSC}$  : 4032 J/g

## ASTM PLOT



$\Delta E : 106 \text{ kJ/mol}$   
 $A : 7.77 \times 10^{18}$   
 $r : -0.99805$

| Heat rate $\phi$<br>(K/min) | $T_{\text{peak}}$<br>( $^{\circ}\text{C}$ ) | $T_m$<br>(K) | $1/T_m \cdot 10^3$ | $\log \phi$ |
|-----------------------------|---|--------------|--------------------|-------------|
| 2                           | 206   | 479          | 2.09               | 0.301       |
|                             | 208   | 481          | 2.08               | 0.301       |
| 5                           | 223   | 496          | 2.02               | 0.699       |
|                             | 222   | 495          | 2.02               | 0.699       |
| 10                          | 235   | 508          | 1.97               | 1.00        |
|                             | 235   | 508          | 1.97               | 1.00        |
| 20                          | 251   | 524          | 1.91               | 1.30        |
|                             | 251   | 524          | 1.91               | 1.30        |