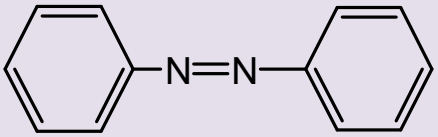
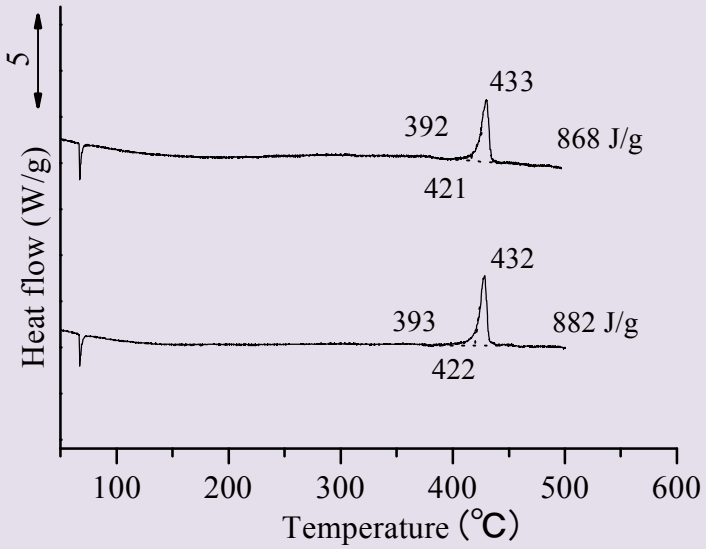
産業技術総合研究所　高エネルギー物質研究グループ
発熱分解エネルギー測定の標準化　　熱分析結果

Azobenzene	$C_6H_5N{:}NC_6H_5$ AzoB
	DSC divice : DSC8270B Rigaku Corp. dT/dt: 2 , 5, 10, 20 K/min Atmosphere: Air Vesel : pressure vessel (SUS) Rigaku Corp. Sample : Wako

Wako：和光純薬工業株式会社

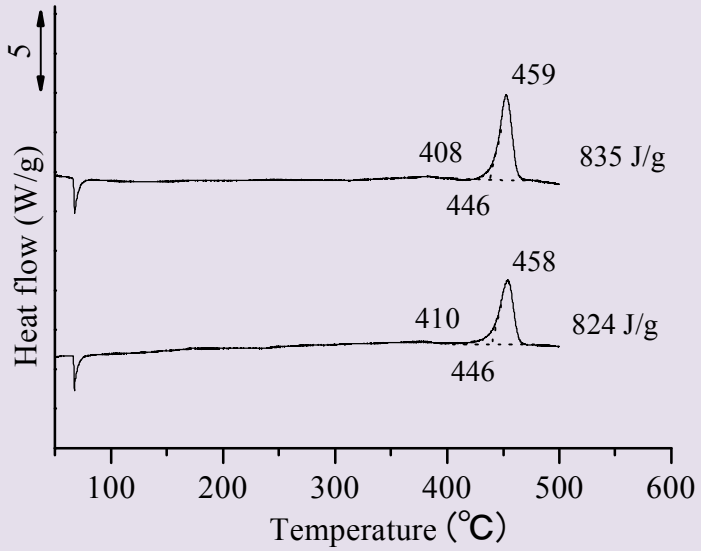
a) 2 K/min



＜Average＞

T_a :	393	℃
T_o :	422	℃
T_{top} :	433	℃
Q_{DSC} :	875	J/g

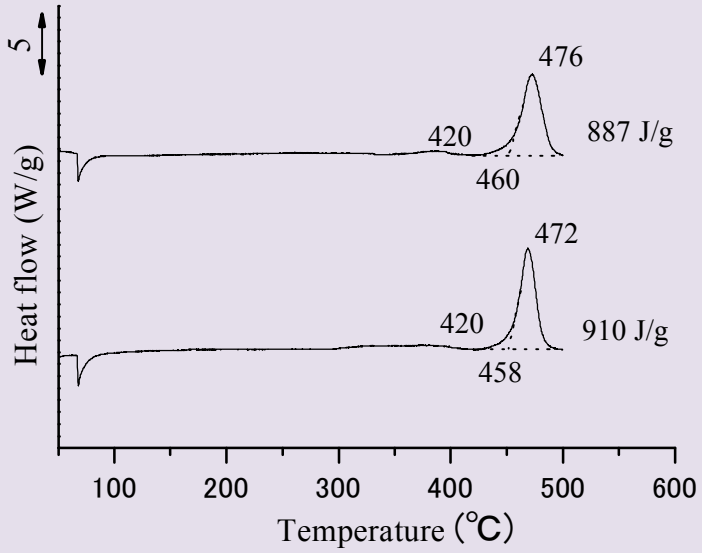
b) 5 K/min



＜Average＞

T_a :	409	℃
T_o :	446	℃
T_{top} :	459	℃
Q_{DSC} :	830	J/g

c) 10 K/min



＜Average＞

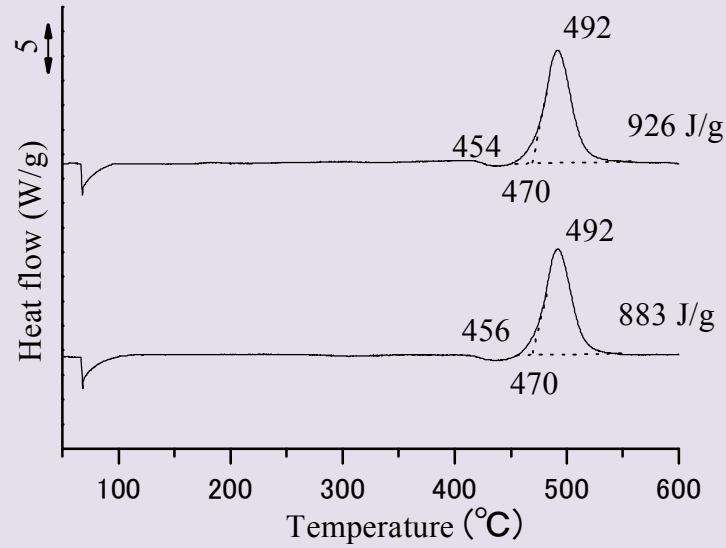
T_a : 420 ℃

T_o : 459 ℃

T_{top} : 474 ℃

Q_{DSC} : 899 J/g

d) 20 K/min



＜Average＞

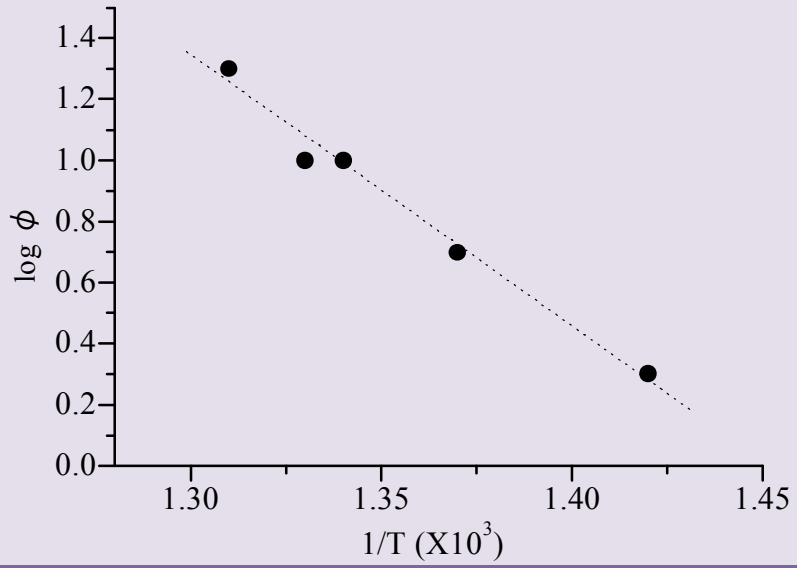
T_a : 455 ℃

T_o : 470 ℃

T_{top} : 492 ℃

Q_{DSC} : 905 J/g

ASTM PLOT



ΔE : 166 kJ/mol

A : 2.68 x 10^{29}

r : -0.9944

Heat rate φ (K/min)	T_{peak} (℃)	Tm (K)	1/Tm·10^3	log φ
2	433	706	1.42	0.301
	432	705	1.42	0.301
5	459	732	1.37	0.699
	458	731	1.37	0.699
10	476	749	1.33	1.00
	472	745	1.34	1.00
20	492	765	1.31	1.30
	492	765	1.31	1.30