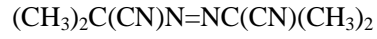
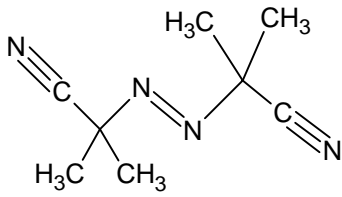


Azobis butyronitrile



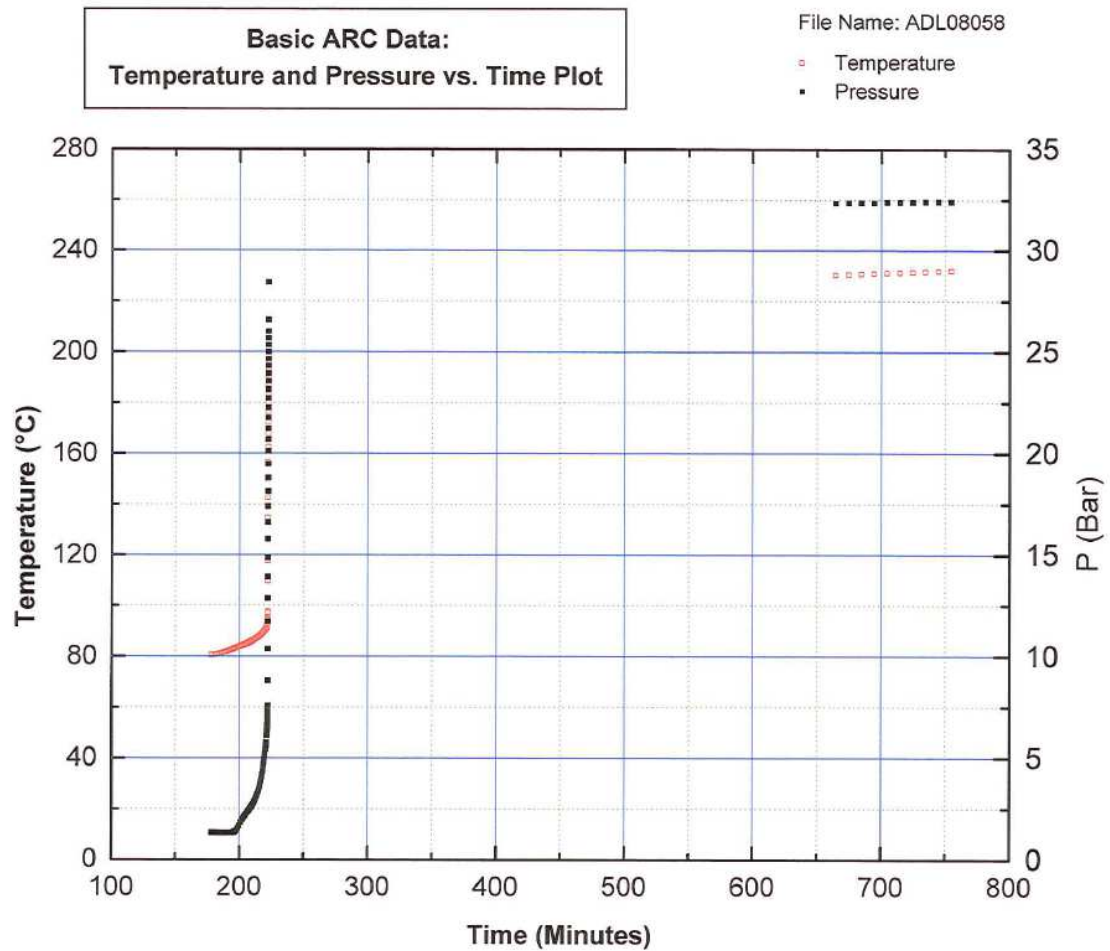
AIBN



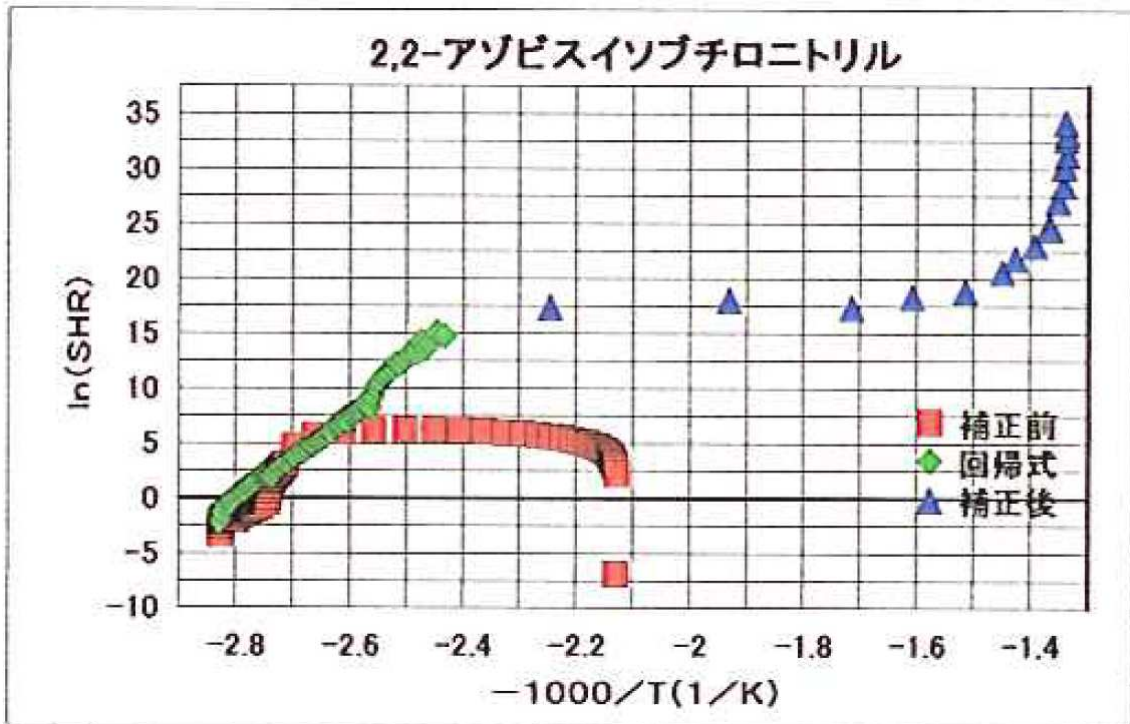
ARC device: ARC2000 (Arthur D. Little Inc.)

Date: 2008/12/17

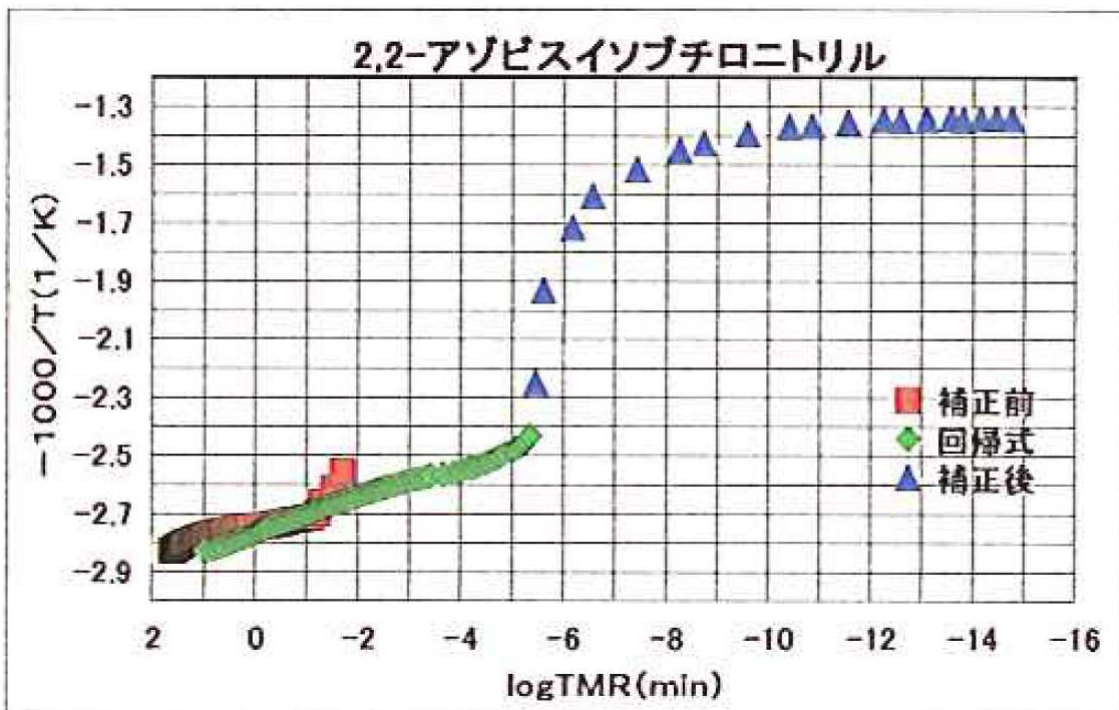
Operator: KJ



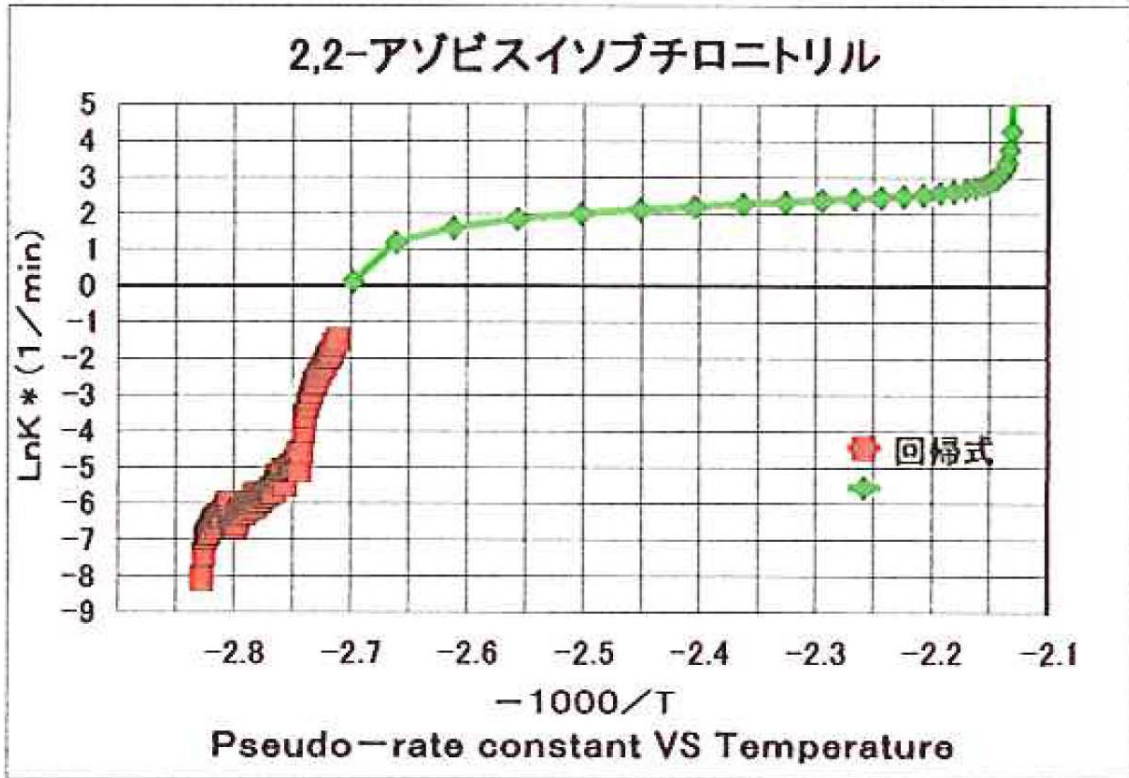
Time vs. Temperature and Pressure



Temperature vs. Self heating rate



TMR vs. Temperature



Arrhenius equation (approximate calculation)

	Date	2008/12/17
Measuring conditions	ARC device	ARC2000 (Arthur D. Little Inc.)
	Operating Institute	KJ
	Operator	KJ
	Material of Bomb	Hastelloy C
	Weight of Bomb (g)	15.136
	Volume of Bomb (mL)	about 9
	Weight of sample (g)	1.301
	Weight of residue (g)	1.043
	Specific heat of Bomb ($J K^{-1} g^{-1}$)	0.419
	Specific heat of sample ($J K^{-1} g^{-1}$)	2.093
	ϕ facotr	3.33
	Start temperature ($^{\circ}C$)	50
	End temperature ($^{\circ}C$)	300
	Temperature increment (K)	5
	Waiting time (min)	10

	Searching time (min)	10
	Exothermic threshold (K min ⁻¹)	0.02
	Logging intervals (°C)	0.2
	Pressure limit (kPa)	17000
	Atmosphere	Air, atmospheric pressure
Results	T _o , Exothermic temperature (°C)	80.49
	Self heating rate at T _o (K min ⁻¹)	0.036
	Pressure at T _o (kPa)	130
	Temperature at maximum self heating rate (°C)	126.39
	Maximum self heating rate (K min ⁻¹)	515.03
	Pressure at maximum self heating rate (kPa)	1390
	Pressure rising rate at maximum self heating rate (kPa min ⁻¹)	6308
	Maximum pressure (kPa)	2840
	Maximum pressure rising rate (kPa min ⁻¹)	9524
	Temperature at maximum pressure rising rate (°C)	102.59
	Time to maximum rate (min)	43.94
	Maximum temperature (°C)	196.65
	Adiabatic temperature rise (°C)	116.16
	Activation energy (kJ mol ⁻¹)	364.7
Heat of decomposition (J g ⁻¹)	808.1	
Corrected results	T _{ARC} , Exothermic temperature (°C)	73.63
	Time of maximum rate at T _{ARC} (min)	118.30
	Self heating rate at T _{ARC} (K min ⁻¹)	0.02
	Maximum self heating rate (K min ⁻¹)	7.37×10^{14}
	Maximum temperature (°C)	474.82
	Adiabatic temperature rise (°C)	401.19
	Heat of decomposition (J g ⁻¹)	841.5