

[Redacted text block]

石 田 政 喜
奥 園 修 一

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

Table 2. Formulations

Sample	Polyol A ²⁾	Polyol B ³⁾	Silicone I 590 S ¹⁾	Water	Catalyst	Recipe	pbw
1	100	0	0	0	0	Polyol ¹⁾	60
2	0	100	0	0	0	Polyol ²⁾	40
3	0	0	100	0	0	Silicone	2.0
4	1.0	0	0	0	0	Water	varied
5	0	1.0	1.0	0	0	Catalyst	varied

Water

Catalyst

1) Partially EO-capped polyetherpolyol from Stabond

Parts by weight



7) Synthesized from Nihon Denso Co., Ltd

50	100
50	100
3.0	0.5
	6.0
	Varied
1.5	46.3
Varied	(105)
1.5	

[REDACTED]

Polyol-A	40	45
Polyol-B	20	
Polyol-C	30	45
Polyol-D		10
Silicono	1.5	1.5
Water	2.0	2.0
Cyclohexane	10	

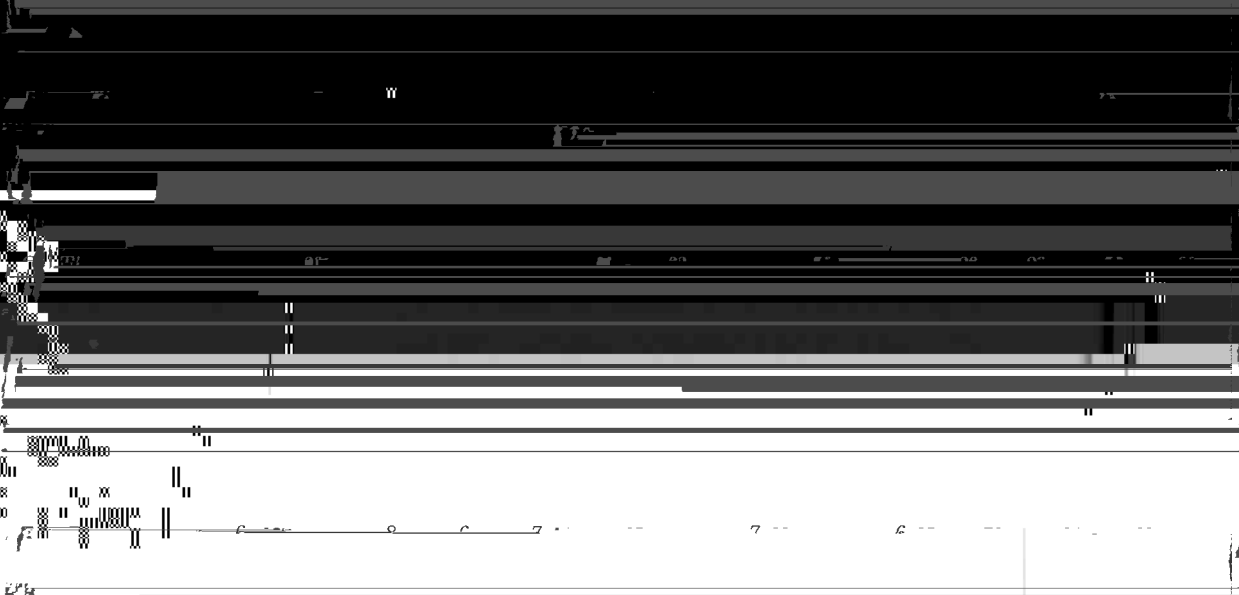
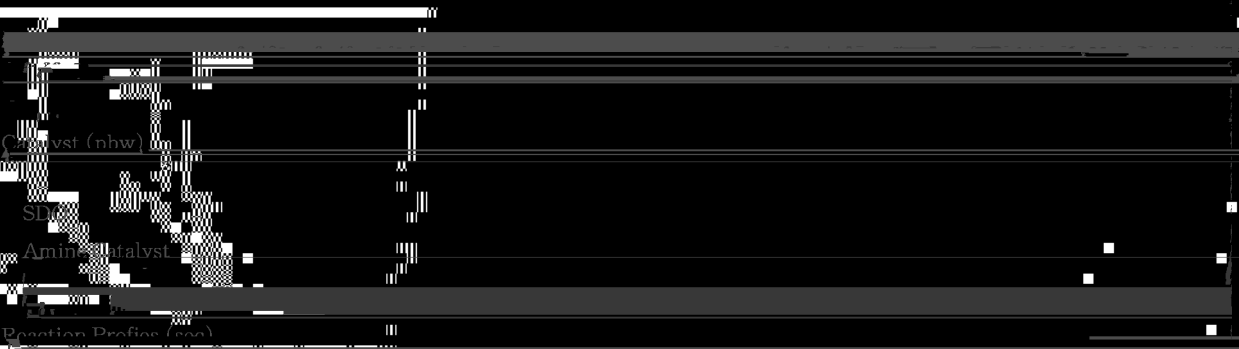
[REDACTED]

Catalyst	varied	varied
Isocyanate	index=110	

[REDACTED]

of amine catalysts on air-water blown hot molded heximide foam system (Kochel) ..

[REDACTED]



61	61	61	60	61	60
----	----	----	----	----	----

||

||

[Redacted Table]

0.60 0.40 0.25 0.13 0.02 0.75 0.48 0.26 0.14 0.02 0.20 0.06 0.02

(Recipe2, PO-terminated nolvol based)

[Redacted Table]

12 10 10 13 13 8 8 0 0 11 0 0 0

snr

[Redacted Table]

[Redacted]

07 100 00 00 04 00 02 00 00 00 00 00 00

[Redacted]

BT

(Resin 3 HO-terminated nylol based)

Catalyst

L33

F2

Catalyst (pbw)

SDO 0 0.05 0.10 0.15 0 0.05 0.10 0.15 0.20 0 0.05 0.10 0.15 0.20

Table 1

Catalysts	Kw	ΔE	Kw	ΔE	Kw	ΔE	(3)/(1)	(3)/(2)
-----------	----	------------	----	------------	----	------------	---------	---------

400

600

0

200

F2

Kw (1²/gmolh), ΔE (kcal/mol)

(1) Reaction of T-100 and diethyl A (FC terminated).

1.10	5.29	10.4	4.90	91.0	1.0	24.0	2.00
------	------	------	------	------	-----	------	------

2.29	6.41	23.0	4.86	5.20	6.44	9.91	4.99
------	------	------	------	------	------	------	------

L33

ET

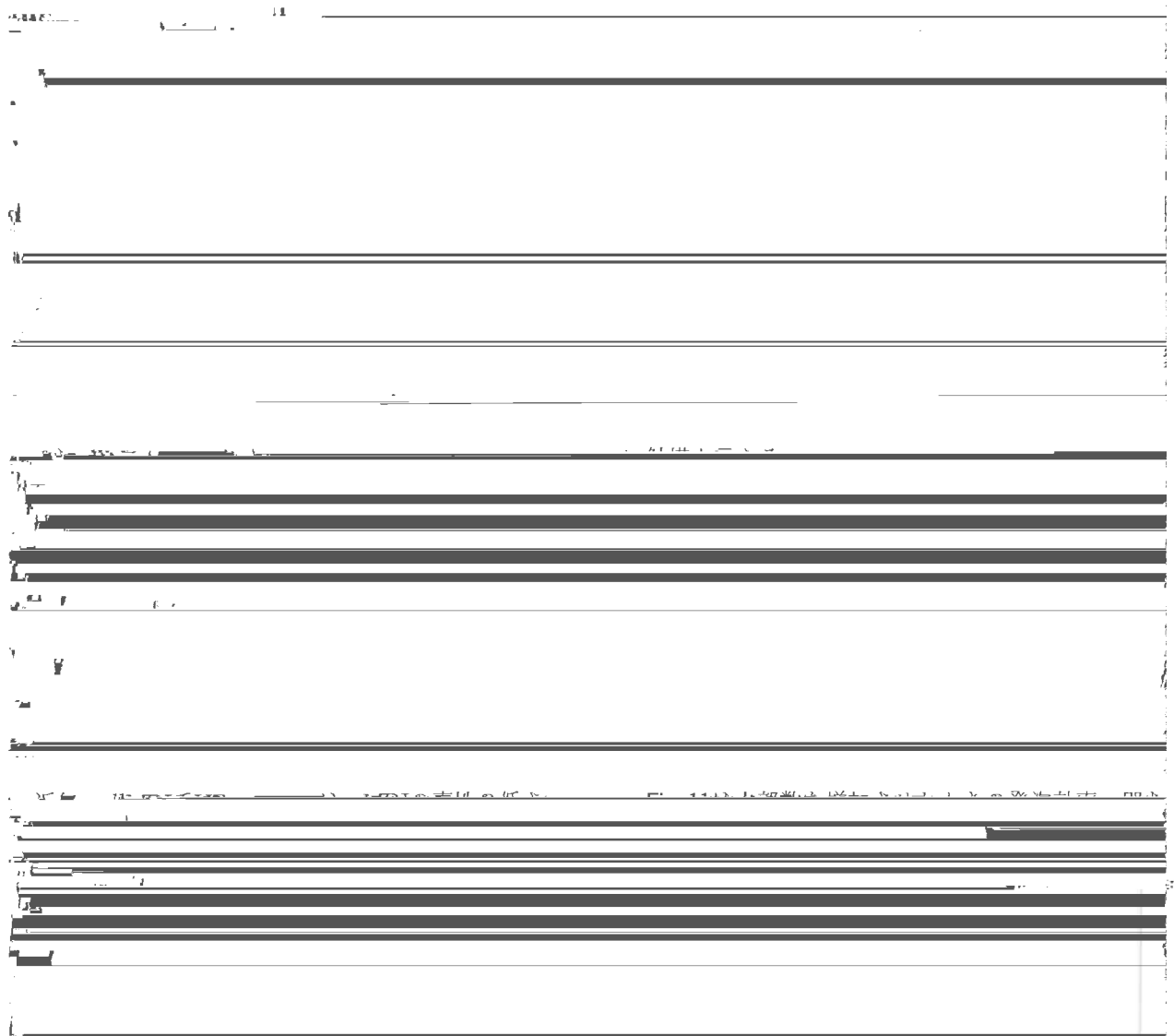
Catalyst

0.61 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32

[REDACTED]

[REDACTED]

[REDACTED]



Rise Time (seconds)

Fig. 19 The effects of reaction rate on foam



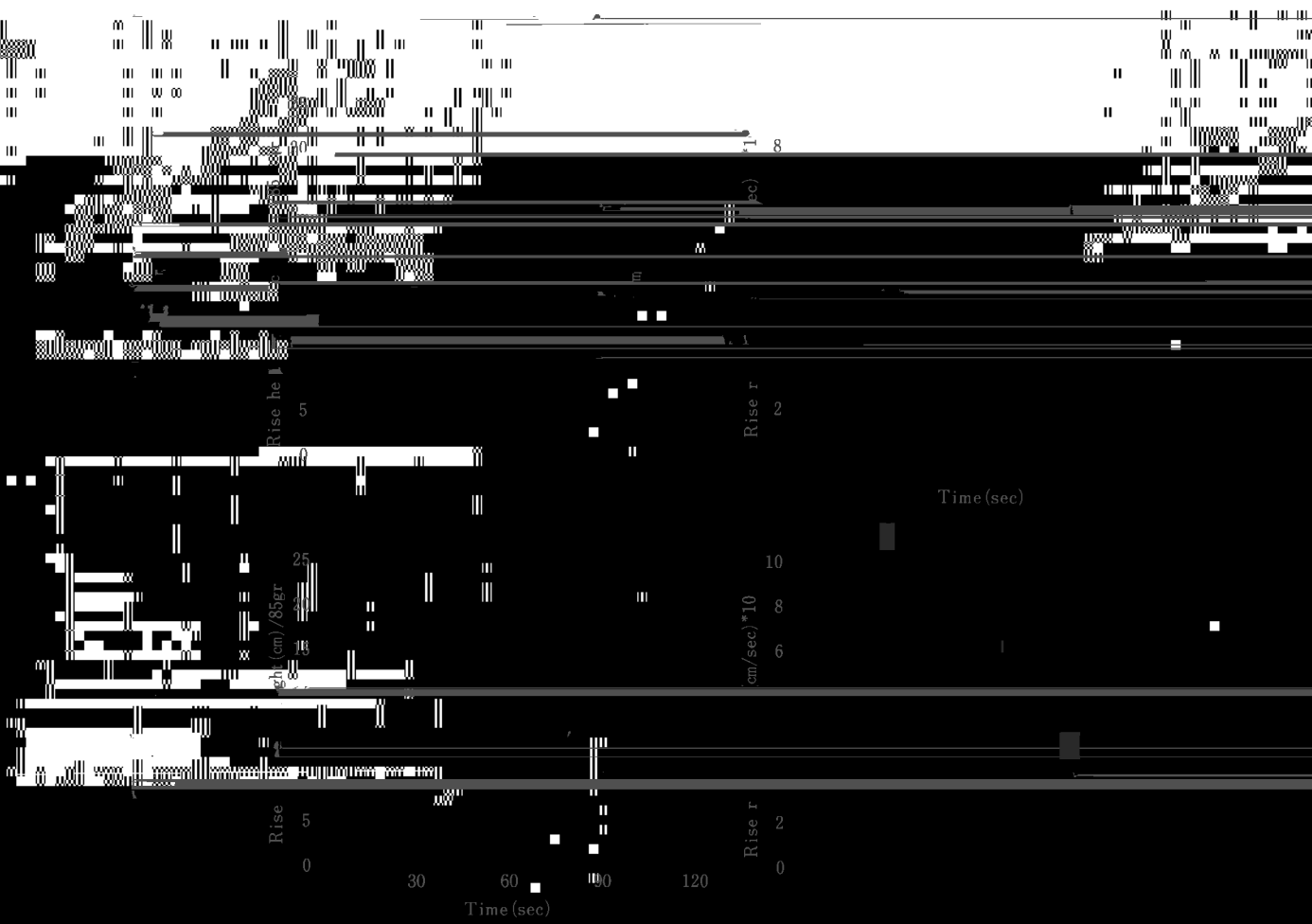


Fig. 12 Rise and rise rate profiles of

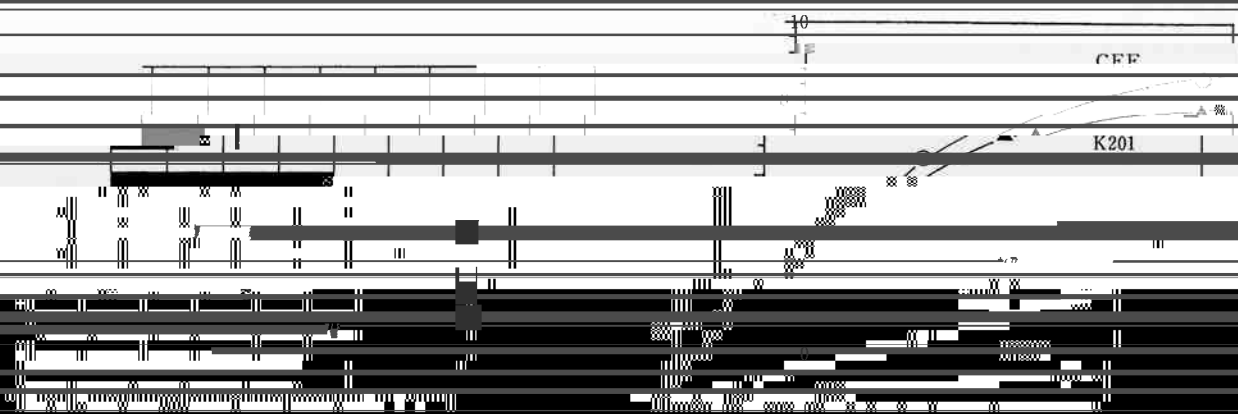
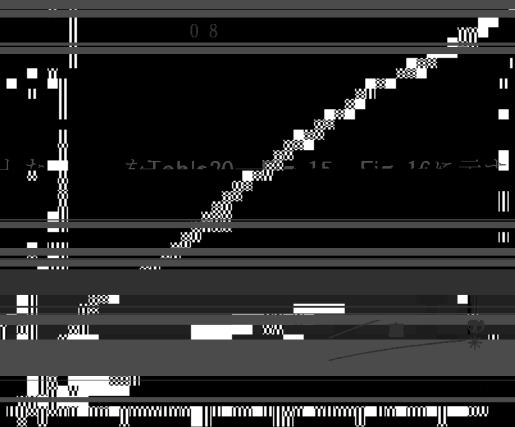


Fig. 15

をC/Cととり分折した結果がFig. 14に示す。[凝縮] 注

をTable 20、Fig. 15、Fig. 16に示す。[凝縮] 注



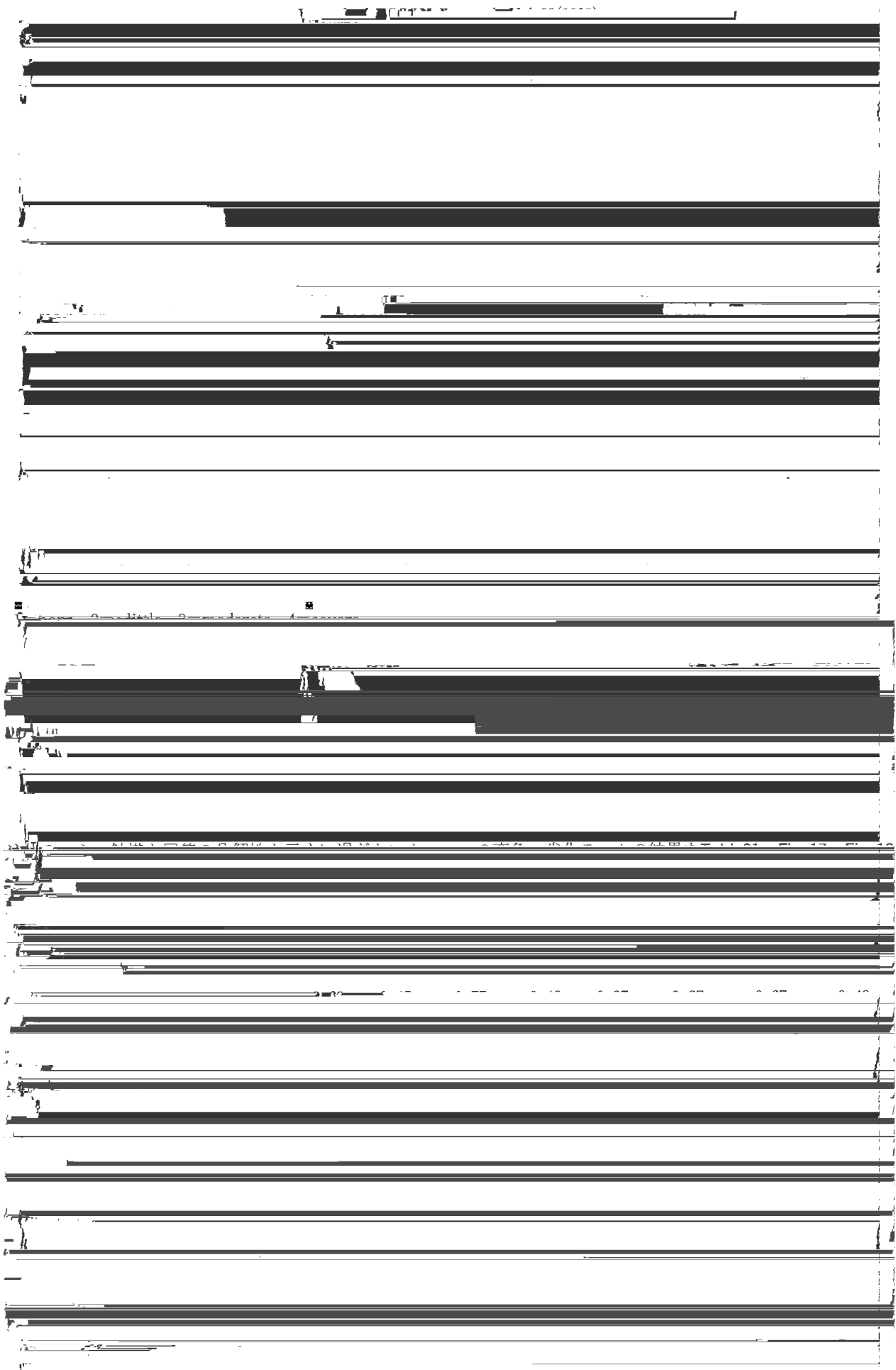
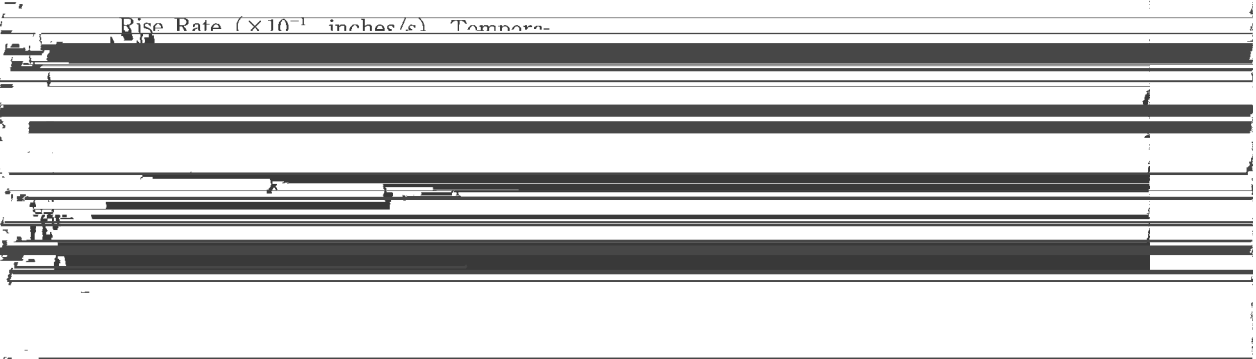
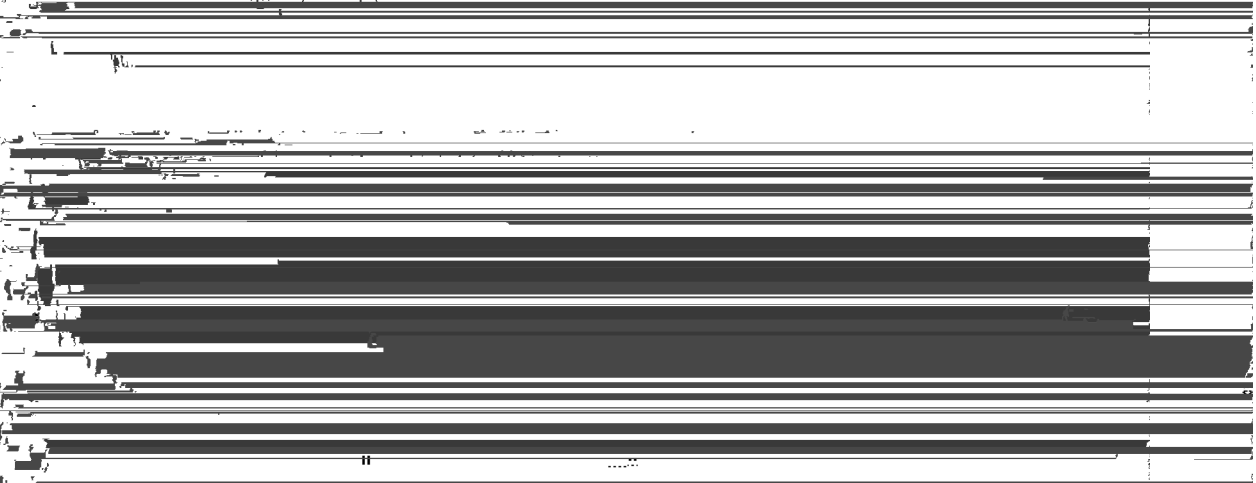
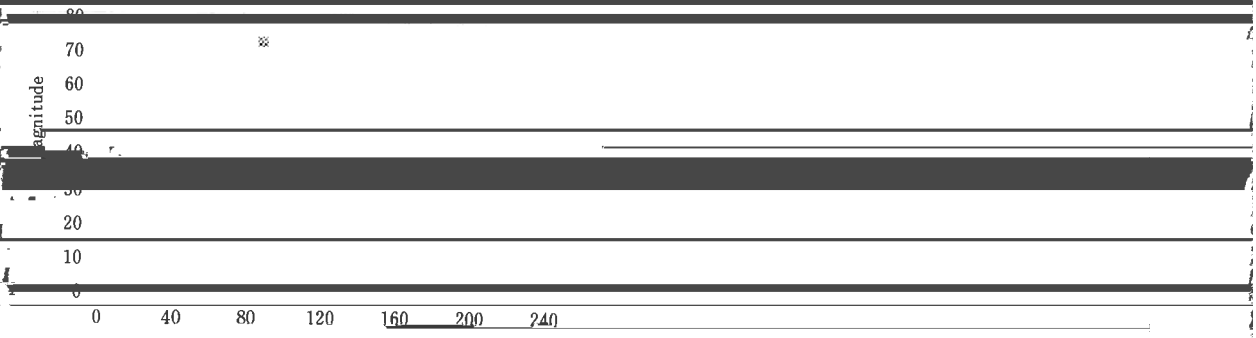
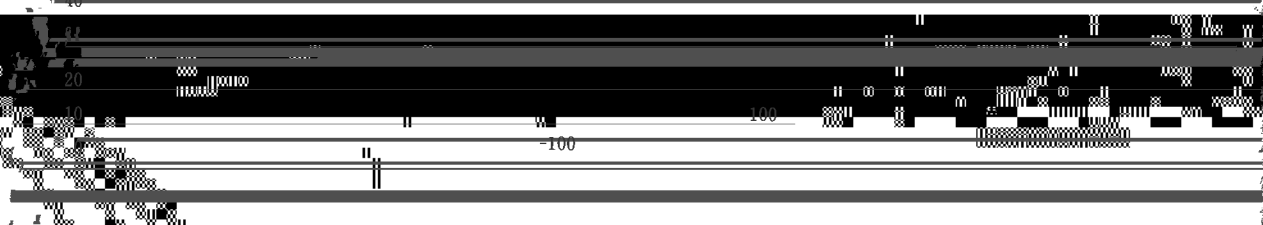


Table 22 Reaction Profiles, Curing Function and Moldability





	61	181
	103	170
100	87	147
90	79	178
80		
70	151	219
60		
50		
40		



10 TG-DTA profiles



Amine
Catalysts

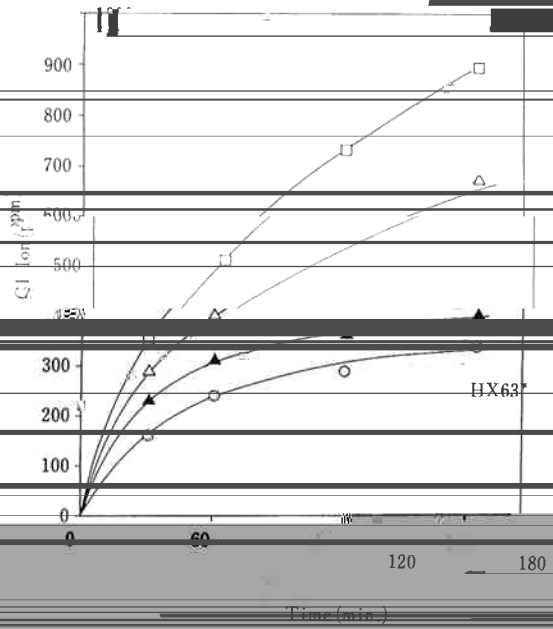
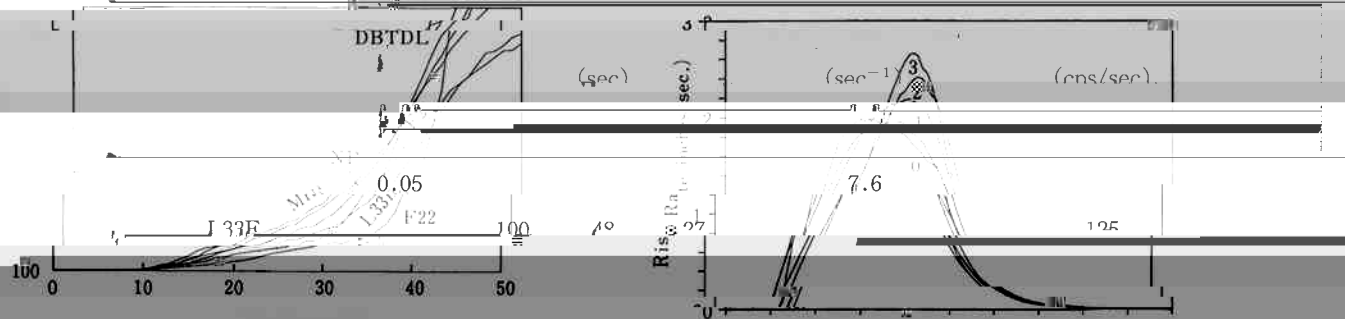
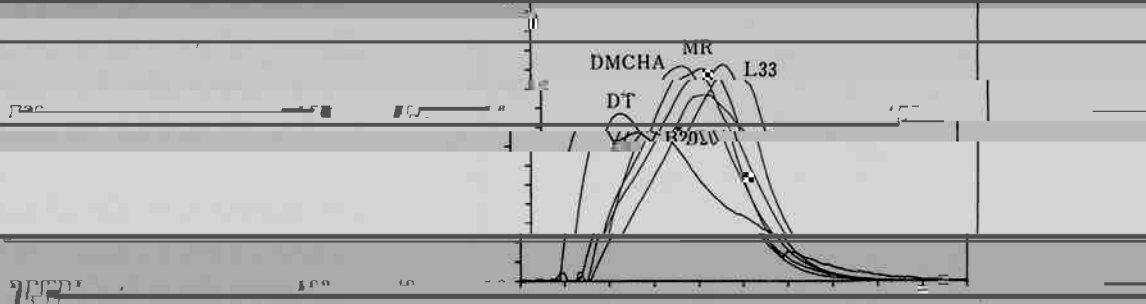


Table 27 Thermosensitive Nature of Catalysts

Catalyst	DLT ¹⁾	DLT ²⁾	DLT ³⁾	DLT ⁴⁾	DLT ⁵⁾
	0.55		3.2		
	0.42		3.0		
		20°C	40°C	60°C	
		Reaction Rate ¹⁾			at Gel Time ²⁾



MR	92	50	31	120
F22	72	49	27	110



1) Data taken at 100°C, 100°C, 100°C, 100°C, 100°C.

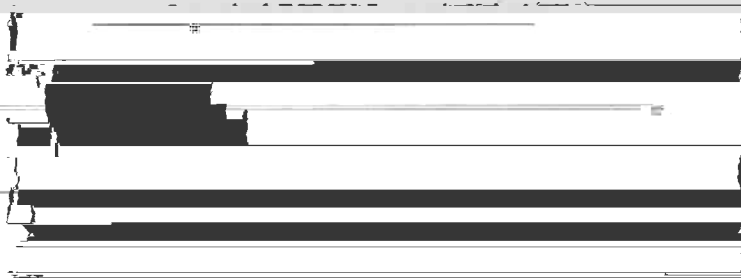


Table 28 Reaction profiles with partial water blown system.

MR



50

51

51

50



CT(Cream Time), GT(Gel time),



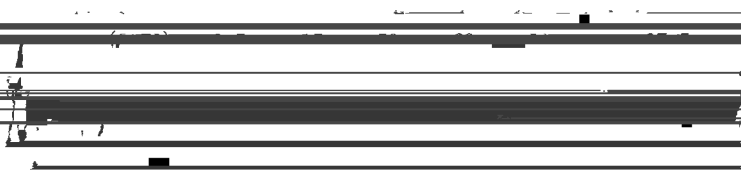
Pressure(Psi)
1.0
0.5

0 40 80 120 160 200 240 280

Time(seconds)

Water Level (oby)

0 1 2 3 4



(pbw)	2.2	1.9	2.1	2.9
-------	-----	-----	-----	-----

MR

1.9

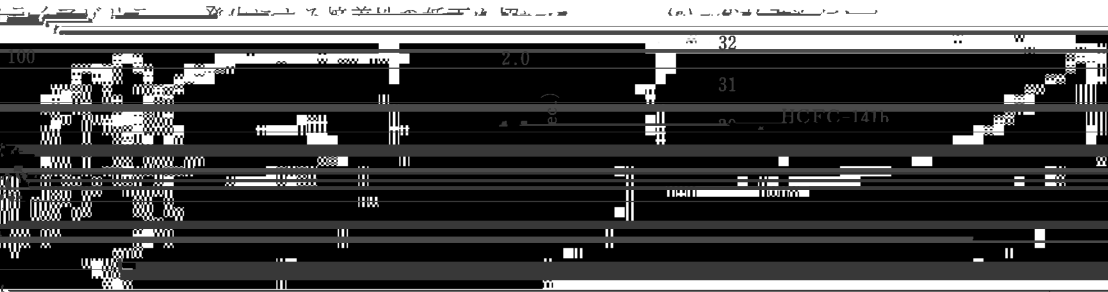
Cream time (sec)	15	13	14	15	17
Gel time (sec)	60	60	60	58	60
Tack-free time (sec)	74	84	84	85	75
Disappearance time (sec)	00	06	06	06	06

27.4	27.4	26.3	27.0	29.7
------	------	------	------	------

Core density (kg/m ³) ¹⁾	17.1	17.1	17.1	17.1	17.1
Mold Mass (kg/m ³) ²⁾	17.1	17.1	17.1	17.1	17.1

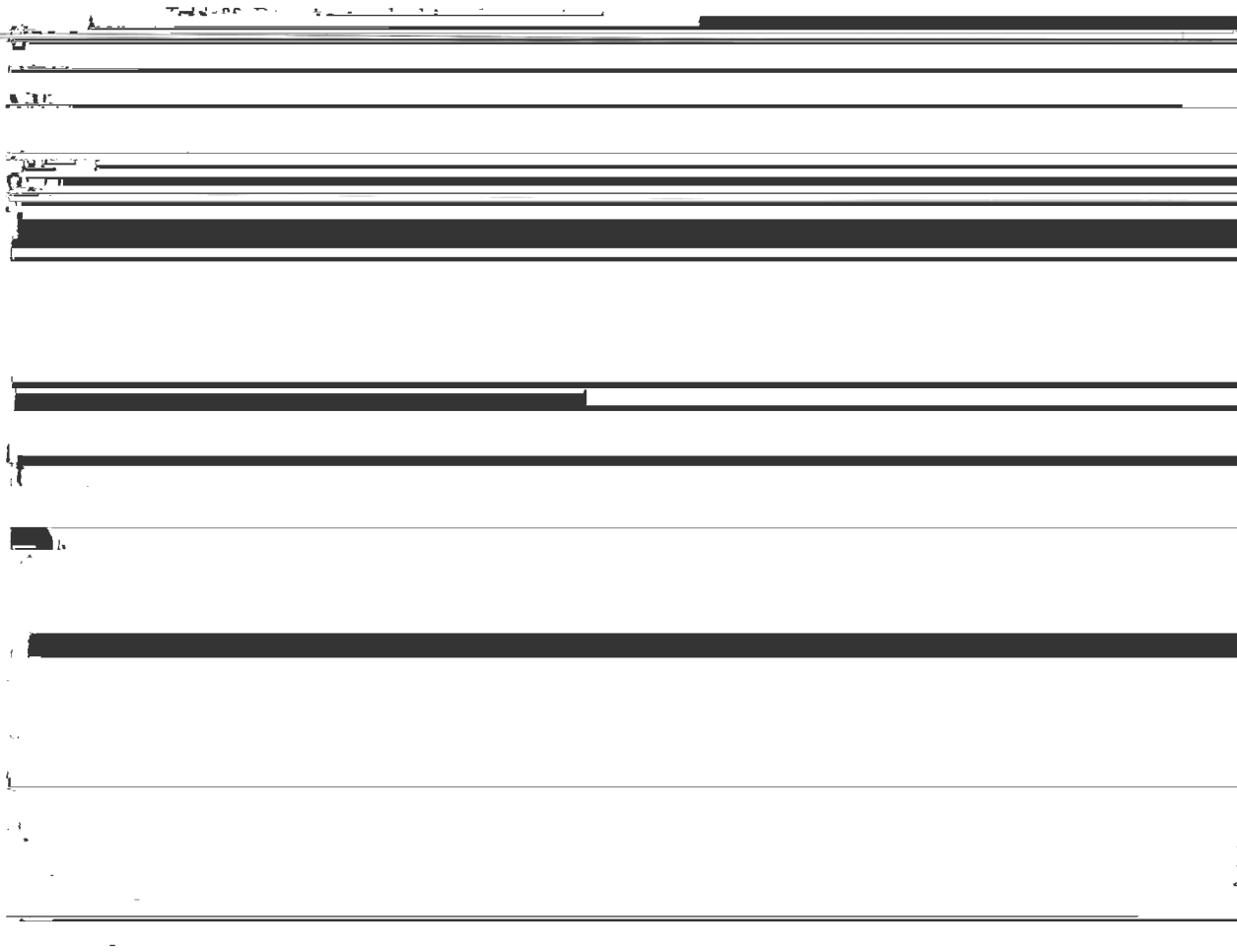
27.4	27.4	26.3	27.0	29.7
------	------	------	------	------

1.22	1.26	1.22	1.34	1.56
------	------	------	------	------

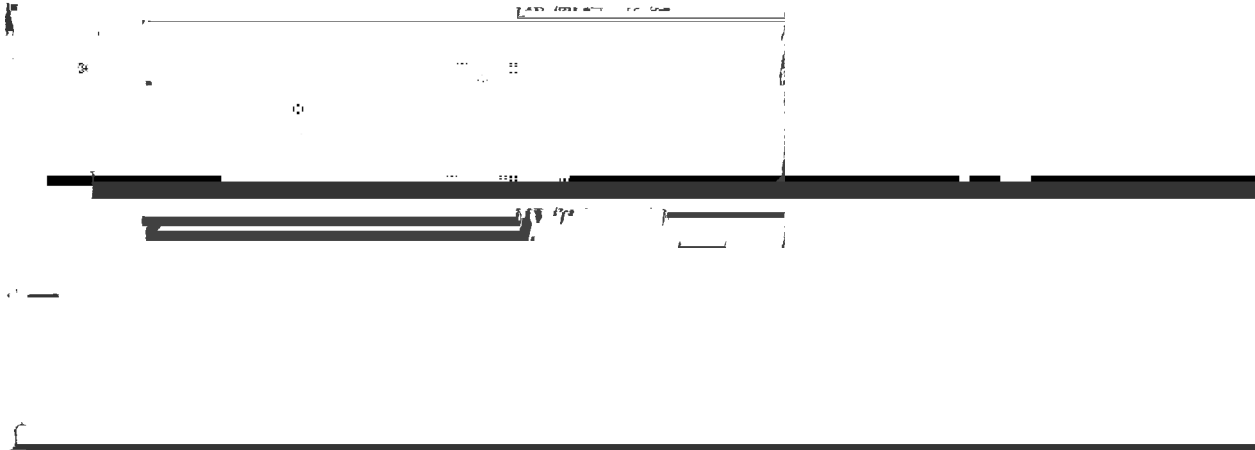


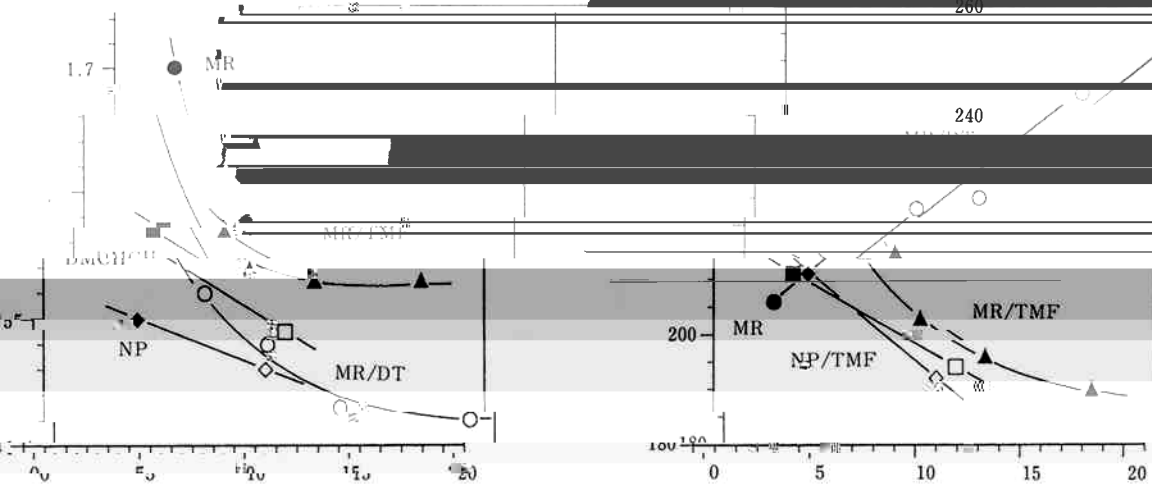
1000

1000



DMCH/TMF
DMCH
MR/TMF=47/53





g ratio
1.6

(λm)

tell s

C II siz



