

가 . ,

가

가

가

(Thermogravimetry : TG)

(Differential Thermal Analysis : DTA)

○ (TG)

가

가

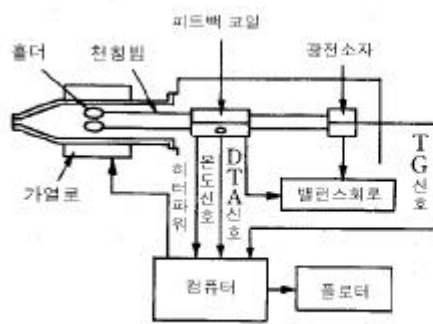
가

가

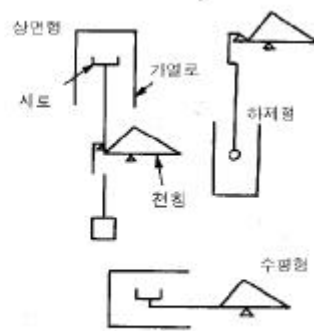
가

가

가



(a) TG장치



(b) 천칭

1. TG

○ (DTA)

2

)가 가 TG

) 가 가

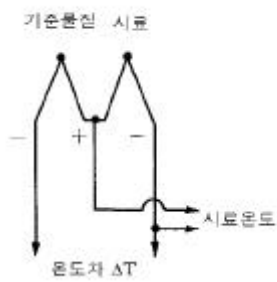
가 . 가 가

가

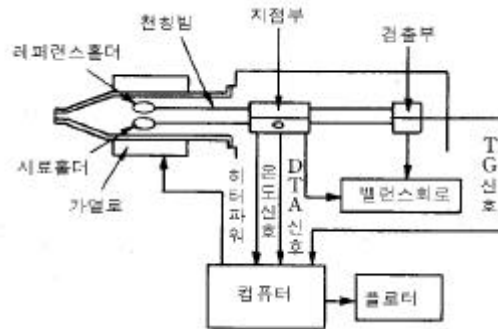
가

. 가

가



2.



3. TG/DTA

○ (TG/DTA)

TG/DTA

가

3

가

TG DTA

가

TG/DSC()

가

TG/DTA

4

가

가

가

4

DTA

TG

가

mg μ g

가

DTA

μ V

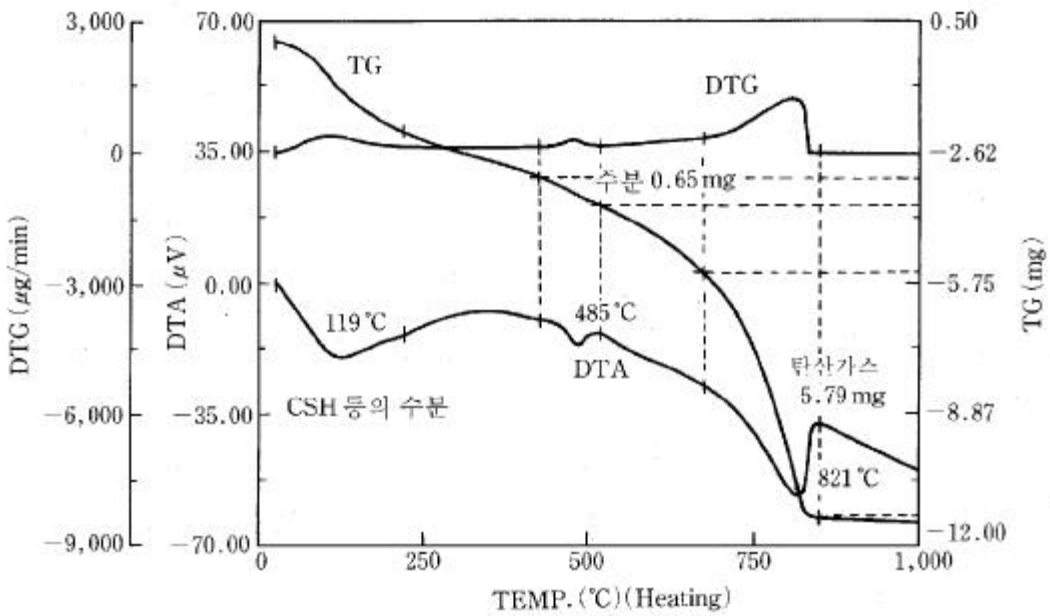
TG DTA 2

가

4

TG

(DTG)



4. TG/DTA

o

450 500
 $\text{Ca(OH)}_2 \quad \text{CaO} + \text{H}_2\text{O}$
 TG
 가
 DTA DTG
 . 2 TG .(0.65mg)
 74.09, 18.02 1mol 1mol
 $74.09/18.02=4.11$
 $\text{Ca(OH)}_2 = 450 \quad 500 \times 4.11$
 $, 0.65 \times 4.11 = 2.67(\text{mg})$
 $37.50\text{mg} \quad (\quad)$
 $2.67/37.50 \times 100 = 7.1(\%)$

o

550 950
 $\text{CaCO}_3 \quad \text{CaO} + \text{CO}_2$
 TG
 가
 DTA DTG
 . 550 850
 TG
 .(5.79mg) 100.09, 44.01
 $100.09\text{g} \quad 44.01\text{g}$
 $100.09/44.01=2.27$
 $\text{CaCO}_3 = 550 \quad 850 \times 2.27$
 $, 5.79 \times 2.27 = 13.1(\text{mg})$
 $37.50\text{mg} \quad (\quad)$
 $13.1/37.50 \times 100 = 34.9(\%)$