

(.)

20%

가

Entrained Air

Entrapped Air

가

CSH

Crack,

1.

가

/

< -1>

(I-CSH, III-CSH),

Ca(OH)₂

가

Ca(OH)₂,

0.1-1000 μ m

20

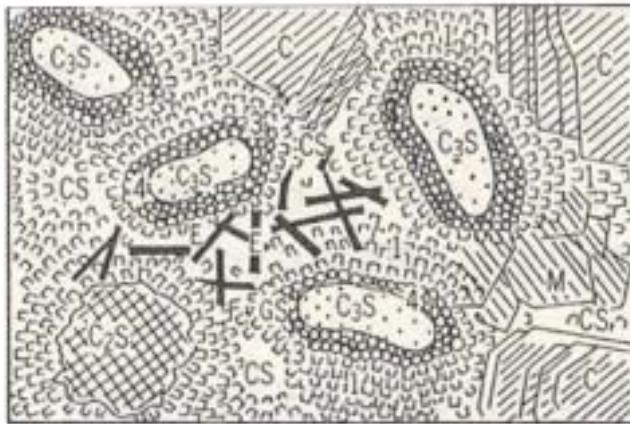
< -2>

가

CSH

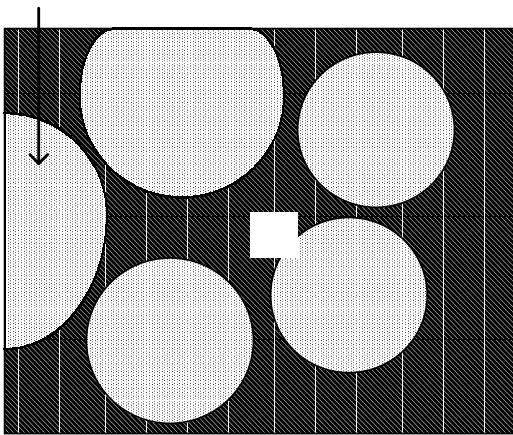
가

가



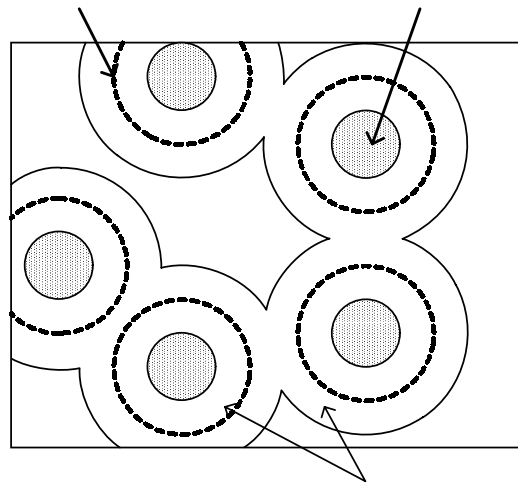
< -1>

C : $\text{Ca}(\text{OH})_2$, M : , CS : , GS :
 E : , 3 : I-CSH, 4 : III-CSH,



()

< -2>



(CSH) 1/2, $\text{Ca}(\text{OH})_2$ 가 1/4, 1/4 가
 가 25%, 가 15%,
 40% .
 ,
 / .

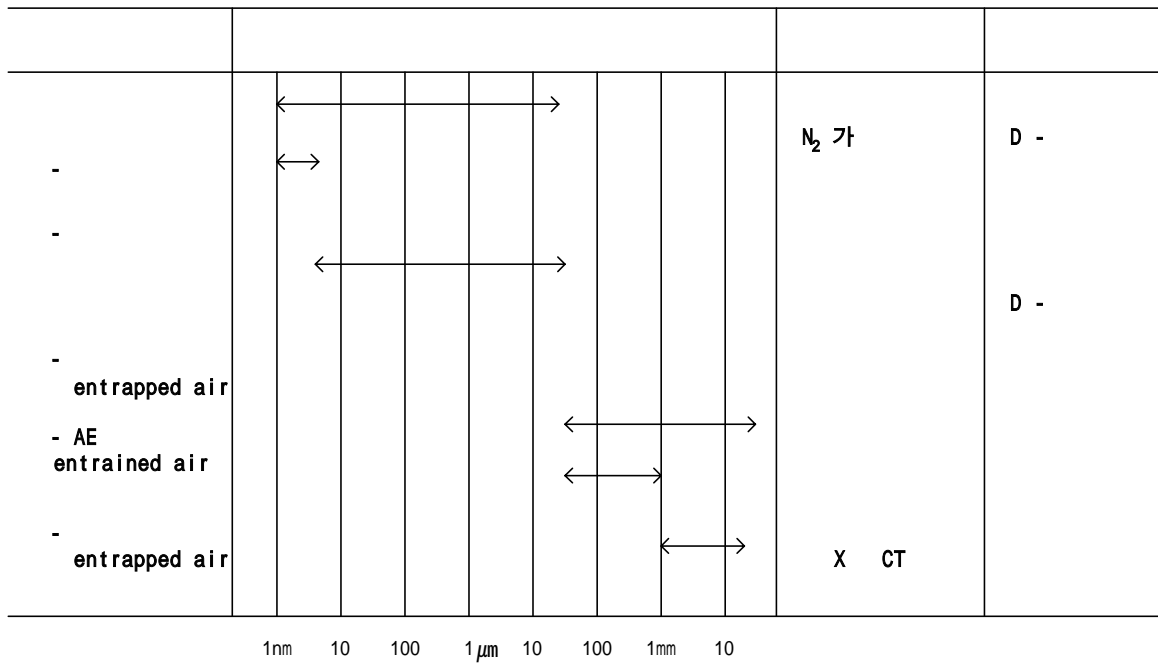
가 0.5-0.6
 , 3
 20%, 1 40%, 1 80%, 3 90%

2.

Entrapped Air, AE
 (Entrained Air), 가

() ,

< -1 >



가 , 가 μm .
 porous
 / , 50 μm
 .
 / , , 가
 , 가 .
 < -1> .

3.

1940 Brunauer, Emmett,
 Teller

BET
 가 , .
 , .
 가 ,
 . 700 m^2/cm^3 , 86
 .
 (Interstitial Space)
 (Capillary Pore,
 Capillary Cavity)

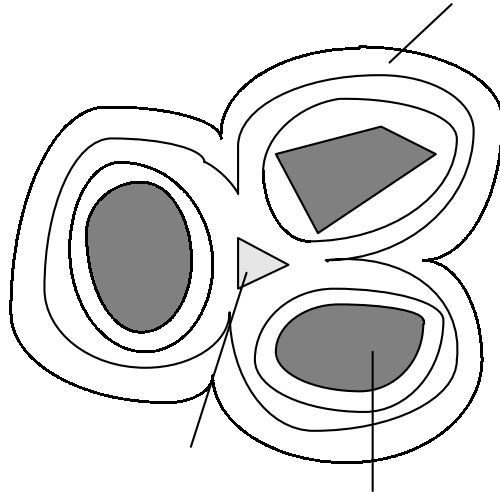
가
 . 가
 Ca(OH)₂ Monosulphate 가
 ,
 < -3> .

4.

1950

Powers

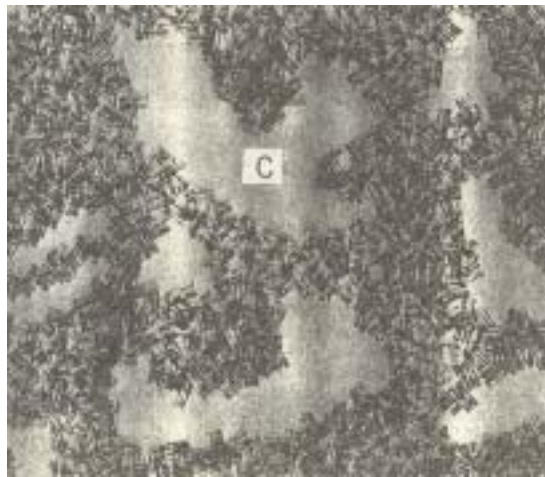
< -4>



< -3>

CSH

Network



[C:]

< -4> CSH

(gel pore)
가

가

가

CSH

Powers

Feldman

< -5 >

CSH

가

Intracrystallite Pore

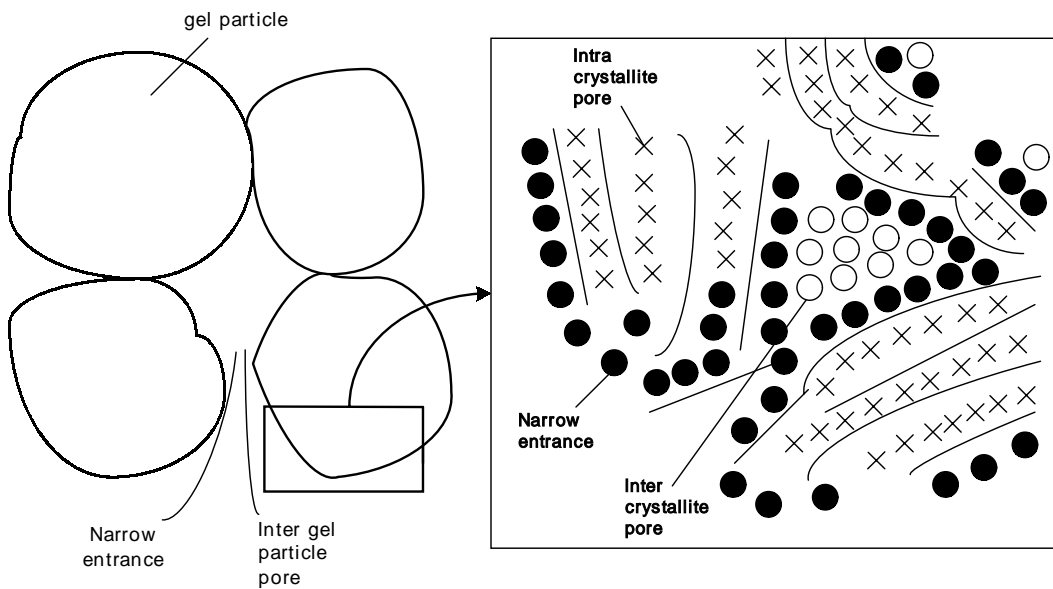
Intercrystallite Pore

(-78 , 0.5 μ Hg)

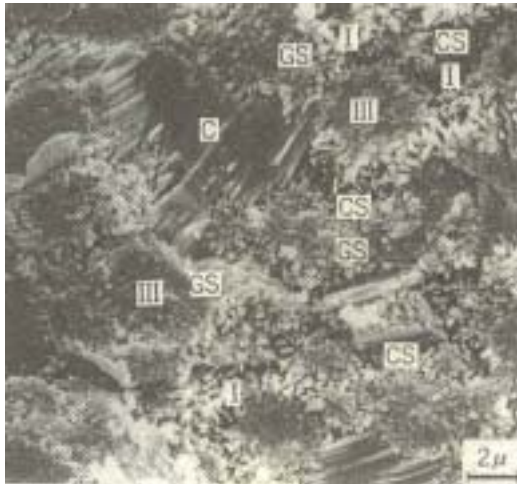
(D-)

D-

가



< -5 > CSH



I : I-CSH, II : -CSH, C : Ca(OH)_2 ,
 M : , CS : , GS :

< -6 >

Image

Uchikawa

< -6 >

. CSH , Ca(OH)_2 ,
 Card House
 . CSH .

5.

AE 4-5%
 가 . AE
 Entrapped Air() 가 1-2% .
 AE Entrapped Air
 Entrained Air()가 3%
 가 , 5% 가
 가 , 가
 3-5%
 . Entrapped air
 , Entrained Air 25-250μ m
 ,
 , 1% AE 가
 600-700 μ m , AE

4%

200-400 μ m .

6.

,

.

,

.

가

가 .

가

가 .

,

.