

< >

“ ”

가가 ,

가

가 가 ,

가

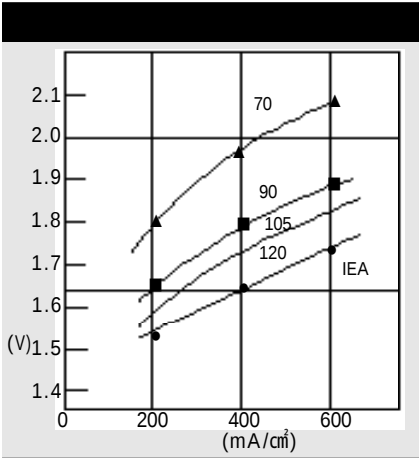
가

90 6

2010

46%

		1988	2000	2010
1 () 가	kℓ	4.82	5.97	6.66
	%		6.0	11.2
	kℓ	620 (1.3)	1,740 (2.9)	3,460 (5.2)
	kwh	860 (4.6)	910 (3.7)	1,050 (3.7)
	kw	(2,030) (15.0)	(2,270) (20.1)	(2,620) (26.5)
	kℓ	40 (0.1)	180 (0.3)	600 (0.9)
	kwh	1,790 (9.0)	3,300(13.2)	4,740(16.7)
	kw	(2,890)	(5,050)	(7,250)
	kℓ	4,610 9.6	6,500 10.9	8,000 12.0
	t	11,460 18.1	14,200 17.4	14,200 15.5
LPG	kℓ	2.76 57.3	3.08 51.6	3.06 46.0
	t	(1,740)	(2,200)	(2,300)
	kℓ	4.82 100.0	5.97 100.0	6.66 100.0



2010 1

5.2%

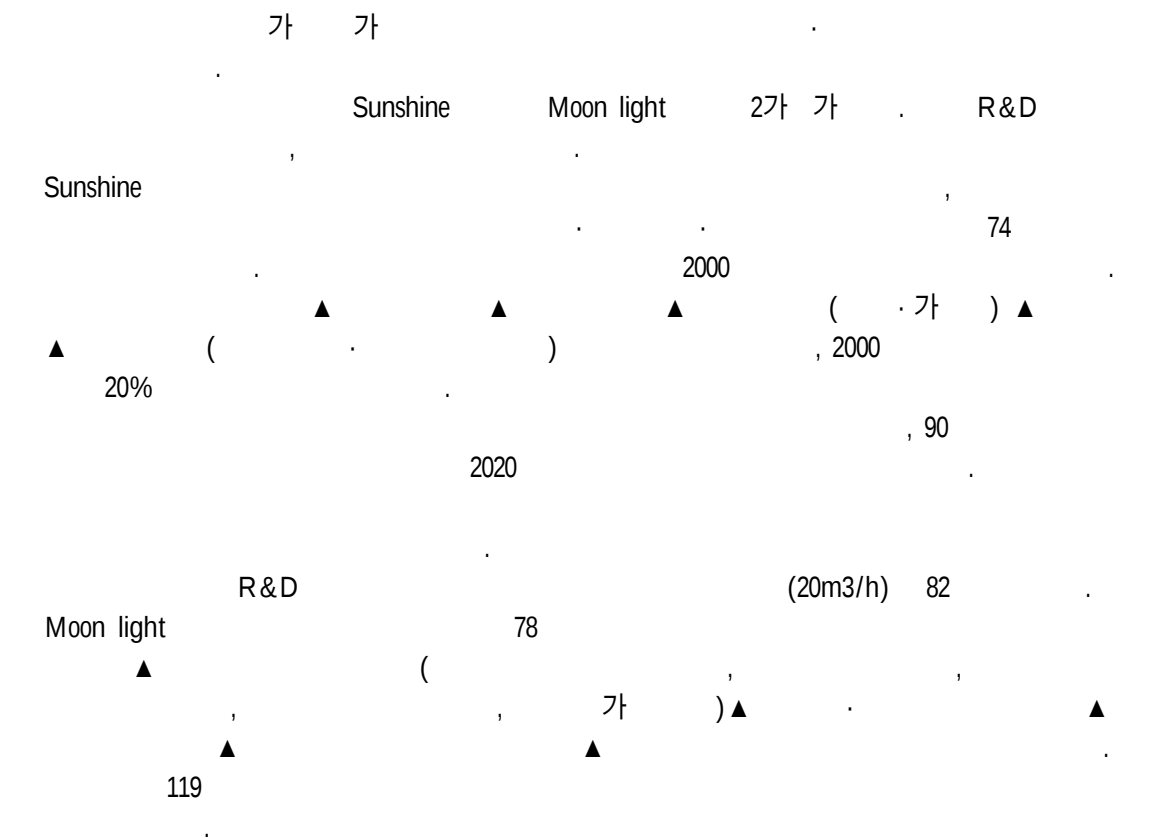
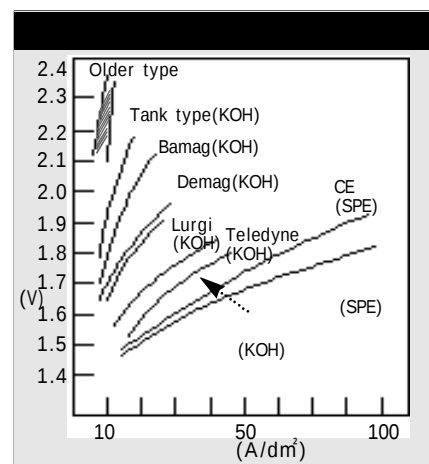
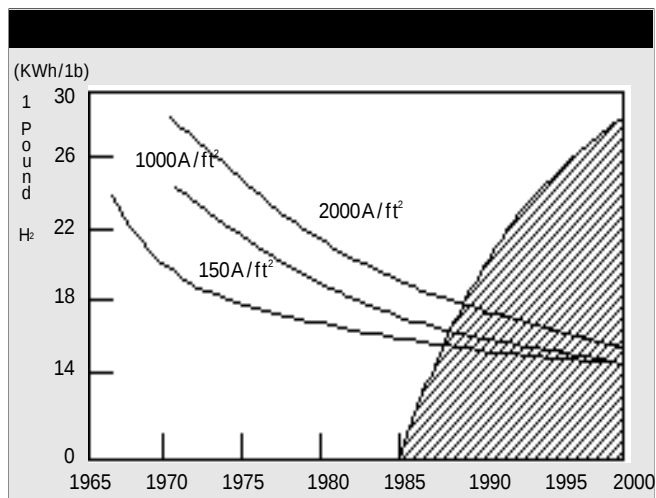
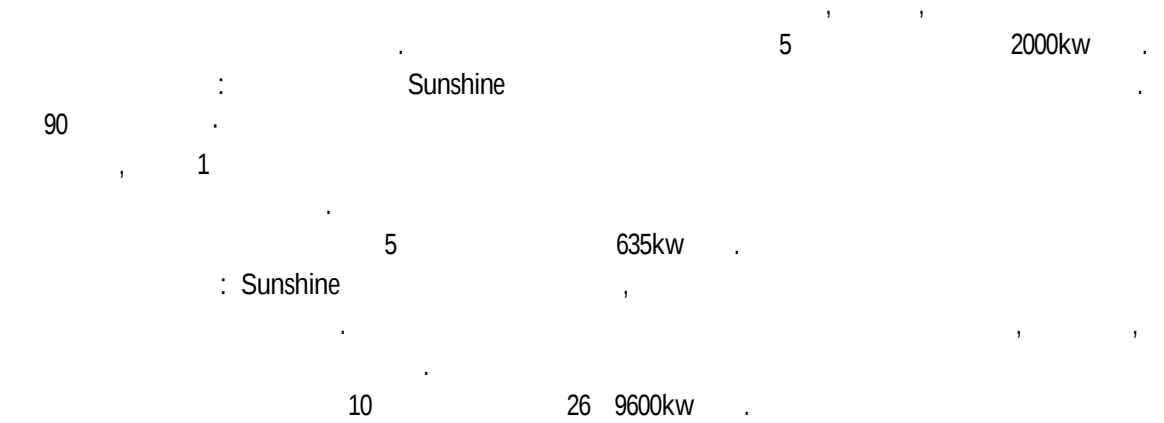
6.1%

가

9가

Solar System 33

가 400



1

2

가

가

20

가

(

),

:

(120)

가

가

(20)

30% KOH

20Nm³

가

3425

가 400Am/cm² (1.73v), 70 120

64% 74% 10%

가

400mA/cm²

2

90%

MTBE			(: 1000)					
1991			1993			1995		
5,300	5,300	0	8,500	9,000	500	11,570	15,000	3,430
0	0	0	450	150	300	900	250	650
720	0	720	720	300	420	900	400	500
2,615	3,000	385	2,855	3,590	735	3,305	4,090	785
500	0	500	1,260	100	1,160	2,340	200	2,140
320	430	110	980	960	20	1,690	1,400	290
9,455	8,730	725	14,765	14,100	665	20,705	21,340	5,010

(SPE)

(Solid Polymer
Electorolyte)

가

가

GE가

150, 200 , 2A/cm²

2A/cm² 0.25mm GE 1

90 18~20kwh, 2000 15kwh가

Sunshine 1.3N/m³ SPE

120.5 100A/dm² 154v

86~96% , 60~70%

가

[illegible]

가 ▲

MTBE 88 가 , 90

MTBE

가 MTBE

91 가 가 87~91 가

가

MTBE 가

MTBE

1659 6000 . MTBE 가 7% 가

MTBE

가 40~90 가

TAME(Teramylmethylether)

91 MTBE 91 11

가 가 가

가

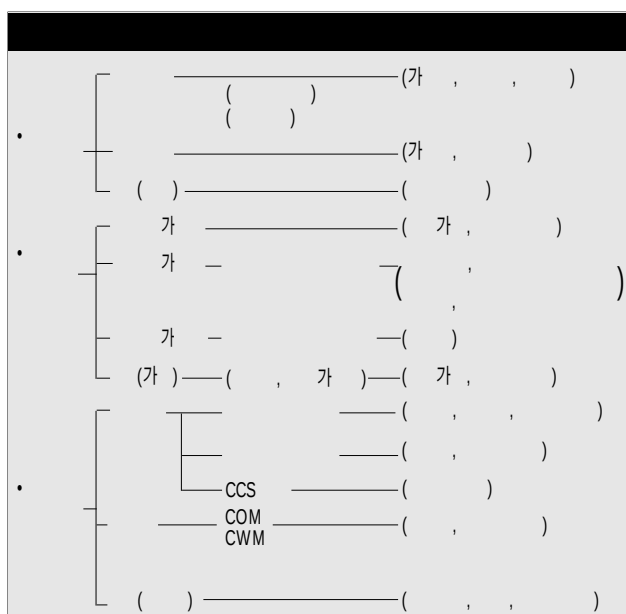
91 3 3015 , 92 1~3 1 2754

2~6 , 10

Sunshine

81 50

150



	15/4	1.0003	0.9137
	(wt%)	4.54	0.66
30	(cSt)	50	
		1,510	60.6
	()	+7.5	-17.5
	(vol%)	1.3	0.9
가	(150)	0.2	0.1
	(150~250)	4.7	11.5
	(250~350)	17.5	29.9
	(350~530)	23.8	46.6
vol%	(530)	53.8	19.9

가 : 가 50% , 40%

H2 가 가 CH4 가 가
가 Sunshine 가

LNG 가 , 가
가
21 가 가
가 2 가 가

88 6 , 1 2500kw 91 4

LNG가 가 200
가
: CCS(Coal Cartridge System) 가

COM(Coal Oil Mixture) 85

CWM(Coal Water Mixture)
/
/

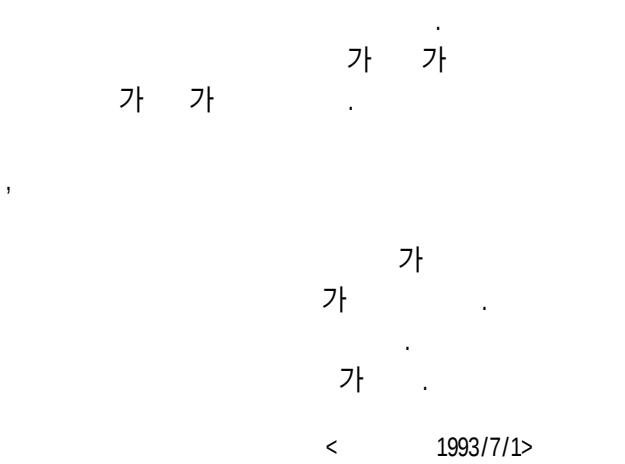
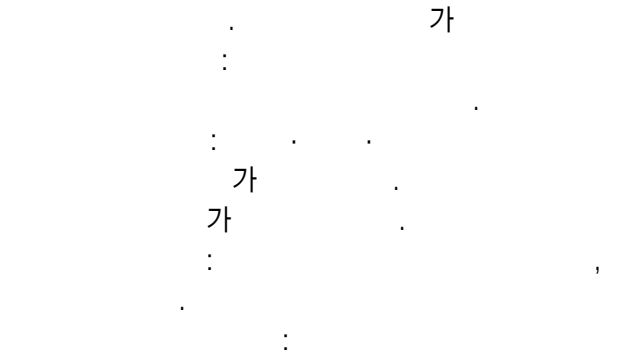
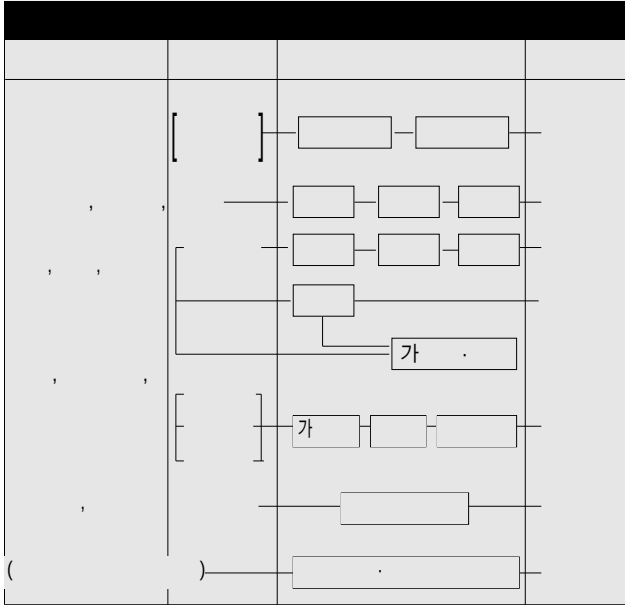
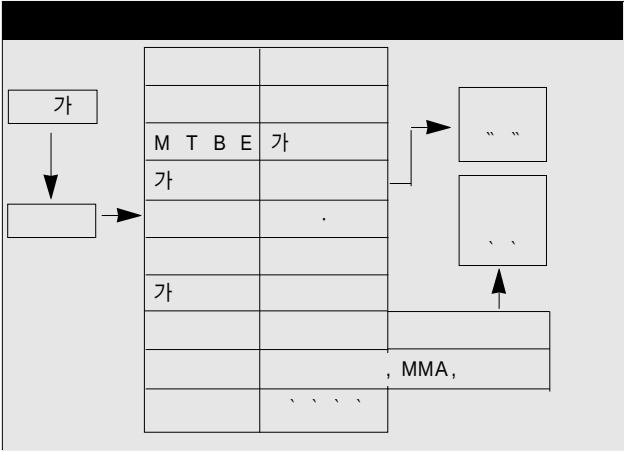
~8000 , CIS 7000

가
2 가 4
20 가

· CIS ·
가 3400

가 가 90% 20

2 , 3530 kℓ



가

가

가 가

가 가

가 가

가

가

< 1993/7/1>