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(12) (A)

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(71)	55133-3427	.	33427
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(72)	55133-3427	.	33427
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	55133-3427	.	33427
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	55133-3427	.	33427
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(74)

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(54)

.	1	1/2500 cm	.	.	1	2	가	1	2	.
가	2	,	1	2	1	2	가	1	2	.

가 . 가 1
가 .

(positional tolerance)가

$$\text{가} \quad \begin{matrix} 1 \\ 1/2000 \end{matrix} \quad (0.00127 \text{ cm}), \quad \begin{matrix} 2 \\ 1/1000 \end{matrix} \quad (0.00254 \text{ cm})$$

가 1 2 가 1 2 가 1 2 , 1

The diagram illustrates a robotic arm with two main stations. The top station, labeled '1' and '(staging station)', is positioned above the arm. The bottom station, labeled '2' and '(vision system)', is positioned below the arm. A dashed line labeled '가' (positioning station) extends from the bottom station towards the right, indicating the direction of the vision system's field of view.

가 1 2

가 1/3000 (0.00085 cm) 가 1
/1000 (0.00254 cm) .

1
3
가 1/1000 (0.00254 cm), 3

가 , . 가

(catalyst - coated membrane; CCM)
CCM

가

$$\text{가} \quad 1 \quad . \quad 1 \quad (10) \quad (14) \quad 1 \quad (12)$$

$$(19) \quad \begin{matrix} (16) & (14) & & (18) & (16) & & 2 \\ (18) & (18) & & \text{가} & (10) & & 1 \\ (14) & (14) & & & (H^+) & (e^-) & (12) \end{matrix}$$

$$(16) \quad (16) \quad (10) \\ (16) \quad (16) \quad (10) \\ (\text{electric load}) (17) \quad , \quad , \quad .$$

2 (19) (10) . 가 (18)

1 (fuel cell stack)

가

79.4 . , (proton exchange membrane; PEM) [175 (가 ,

PEM

(,)가
- (solid organic polymer poly-perfluorosulfonic acid)
가

가 , 가 ()

PEM, PEM (fluid transport layer; FTL) . 1 FTL, 2 FTL

EM/ / 2 FTL 5 (membrane electrode assembly; MEA) PEM 1 FTL / PEM 1 FTL / PEM 2 FTL 1 FTL 2 FTL PEM , PEM

FTL (carbon fiber paper) . , FTL
가 . FTL FTL

....., DMFC (direct methanol fuel cell; DMFC) 가 , PEM (f
uel reformer)가 DMFC 120 190 (48.9 87.8),

(molten carbonate fuel cell; MCFC) ,
/ . MCFC 1,200 (648.9) .
74

(solid oxide fuel cell; SOFC) (ytrria)

(prototypic ceramic fuel cell; PCFC)
PCFC 1,300 (704.4)

. PCFC

1

2

(30)

가

2

(32)

$$(33) \quad (32)$$

1
3

)

(30) (32)

2
 (50)
 (50)
 (90)

(30) (52) (, 2 x) (30) (30)

(90)

(50)

가

(74) 가 (50) (74) (32) (74) (33) (50) (34) (32) (74) (photo-eye) (3)

$$2 \quad (50) \quad (60) \quad (60) \quad (60) \quad (62) \\ (62) \quad (61) \quad (60) \quad (60) \quad (90)$$

(30) (40) . (40) (44) (50)
(60) 가 . , (40) , (32) (60) (50)
(44) (60) (60) (60) (50)

, (42) , (33A) , (33A)
 (32) 가 (32) . , (50) 가
 3 (72) 가 (32) (33)
 가 , (33)

(57)

1.

1 , 1
 2 , ,
 가 1 2 , ,
 1 2 , 1

2.

1 , 1/2000 (0.00127 cm)

3.

1 ,
 1 1 ,
 가 1 ,
 가 1

4.

1 , 2

5.

4 ,

6.

4 ,

7.

1 , 가 가

8.

1 ,

가

가

9.

1 ,

z

x y

10.

9 , 가 x , y

가

11.

9 , 가 x , y

가

12.

1 ,

13.

12 ,

14.

12 ,

15.

1 ,

16.

15 ,

17.

15 ,

18.

2

1

1

가

2

가

가

1 2

19.

18 , 1/2000 (0.00127 cm)

20.

18 ,

21.

18 , 1 , 1

22.

18 1 2 , ,

23.

18 , 2

24.

18 , 2

25.

18 ,

26.

18 , x , y z , 가 ,

27.

18 , x , y z

28.

18 , x , y z

29.

18 2 , , x , 1 , , z

30.

18 ,

31.

18 , x y z

32.

18

33.

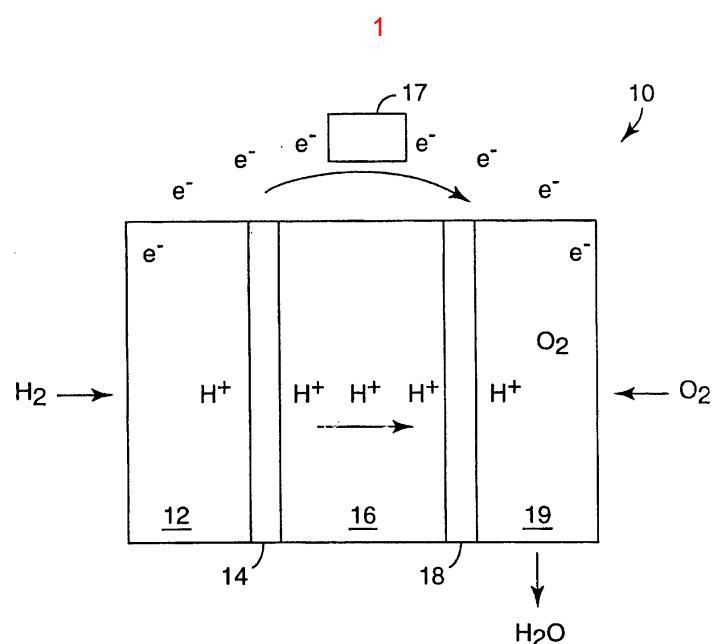
18

34.

18

35.

18



2

