

(19)  
(12)

(KR)  
(A)

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G02F 1/136

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(43)

2001 - 0084454  
2001 09 06

(21) 10 - 2000 - 0009502  
(22) 2000 02 25

(71) , 20

(72) 2 77 103 - 808

(74)

(54)

가 . . . . .

1		
2		1
3		2
4		3
5a	5d	2
6a	6c	3
7a	7b	4

◀ ▶

50 : 51 : 1

53 : 55 :

57 : 59 :

61 : 63, 65 :

66 : 67 :

68 : 69 : 1

71 : 2                    73 :

75 · 77 · 2

79 : 80 :

81

가

가

, , , ,

(Thin Film Transistor)가 , , , ,  
가 . ,

(pixel)

가 .

가

(sealant)

1

(10) (40) , (10) (40) (45)

(10) 1 (11) (13), (17), (19), (21),  
(23)(25) (Thin Film Transistor)가  
(13) (15) . , (23)  
(26) 가 .

(25) (17) (27) , (27)  
(29) .

, (27) (29) (25) (31)

(27) (31) 1 (33)

(40) 2 (35) (37) ( ) 가  
(37) (10) , , ( ) (R), (G)  
(15) (26) . , (31)  
(B)

2 (35) (39) , (39) 2 (41)

10 (40) (10) (40) (37) 가  
(40) 가 (43) (10) (43) 가 (43)  
(40) (43) (26) (10) (40)  
(45) (10) (40)

, 가 , , 가

, 가

1

1

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1

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1

2

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2

1

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1

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1

2

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3

1

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1

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2

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2

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2

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1

1

, , , , ,

, , (photo)

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, , (photo)

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3 1

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2 1

1 (81) . (50) (80) , (50) (80)

(50) 1 (51) (53), (57), (59), (61),  
 (53) (63)(65) (55) (Thin Film Transistor) 가  
 (66) . , (63) (55) (63) (66)

(57) (65) (67)

, (63)(65) (59)  
 (68) (79) (acryl), (polyimide),  
 (cytop), BCB(benzocyclobutene) PFCB(perfluorocyclobutane),  
 2 3μm , ,  
 (black carbon) (polyacryl) (79)  
 2 3μm

(68) (79) (50) (80)  
 (79) , (68) (off current) 가 가

, (50) (67), (68) (79) 1 (69) (69)  
 . 1 (69) (polyamid) 500 800

(80) 2 (71) (R), (G) (B)  
 (79) (50)

2 (71) (75) (75) 2 (77) (79) 800 (77)  
 . 2 (77) 1 (69) (polyamid) 500

(50) (50) (80) (80) (68) (79) (79) (68)  
 (81) (50) (80)

3 2

2 1 (68)  
 . , 3 2

(63)(65) (68) (59) (59) (66) (79) 0.2 1μm 2 3μm (68)  
 (63)(65) (66) (63)(65) (66) (off current) 가 가

(50) 1 2 (68) (79)  
 (79) (80) (80) (73) 가

4 3

3 2 1 (68)  
 (50) (80) (80) (73) 가

4 6μm 1 (68) (69)  
 (50) (67) (68)

,	(73)	(40)	2 (55)	(35) (66)	(50)	,	,
5a	5d	2		(50)	.	.	.
5a	,	1 (63)(65)	(51)	(53),	(57), (55)	(59), (61), (66)	
(Indium Zinc Oxide : IZO) (63)(65)				(Tin Oxide : TO) (65)			
,			(65) (67)	.	,	(67)	(66)
5b	,	(67)			(acryl)	,	(polyimid
e), 2 3μm		(cytop), BCB(benzocyclobutene)	(68)	PFCB(perfluorocyclobutane)		(68)	
(68)	2 3μm			(black carbon) (79)	.	(68)	(polyacryl) (79)
,		(79)		(photo)		(68)	
5c (68) (79)	SF <sub>6</sub>	,	SF <sub>4</sub> 가	O <sub>2</sub> 가	가	(68)	.
,	,	(68) (79)	(80)	(79)	(80)	(50)	.
5d	,	1	(69)		(67), (polyamid)	(68)	(79) 500 800 1 (69)
6a	6c	3		(50)	.	.	.
6a 9),	,	5a (61), (66)		1 (63)(65)	(51)	(53), (67)	(57), (55) (65)
			(67)				

(67) (cytop), BCB(benzocyclobutene)	PFCB(perfluorocyclobutane)	(acryl)	,	(polyimide), 2 3μm
(68)	.	(68)	.	
(68) 2 3μm	(black carbon) (79)	.	(68)	(polyacryl) (79)
,	(half)	(photo)	,	(79)
0.2 1μm	,	,	(63)(65) (68)	(66)
6b 가 (79) (63)(65)	(79) (67)	(68)	.	SF <sub>6</sub> SF <sub>4</sub> 가 O <sub>2</sub> 가 (68) (79)
,	(68)	(63)(65)	(66)	(66)
,	(68)	(67)	,	
,	, 0.2 1μm	가	,	(63)(65) (66)
(63)(65)	(63)(65) (66)	(66)	.	(68)
6c	,	(67), (polyamid)	(68)	(79) 500 800 1 (69)
.	1 (69)	.	.	.
7a	7b 4	(50)	.	.
7a 9),	, 5a (61), (66)	1 (63)(65)	(51)	(53), (67) (57), (55) (65)
,	(67)	.	.	.
(cytop), BCB(benzocyclobutene)	PFCB(perfluorocyclobutane)	(acryl)	,	(polyimide), 4 6μm
(68)	.	(68)	.	
,	(68) SF <sub>6</sub> SF <sub>4</sub> 가 O <sub>2</sub> 가 가	.	.	.
7b	,	(67)	(68)	1 (69)
1 (69)	(polyamid)	500 800	.	.
7a (73)	7b	(50)	4	(80)

2

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2

가

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가

(57)

1.

1

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1

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2

1

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2

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2

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2.

1

,

(acryl)

,

(polyimide),

(cytop), BCB(benzocyclobutene)

PFCB(perfluorocyclobutane)

3.

1 ,

4.

2 3 ,

2 3 $\mu$ m

5.

1 ,

(black carbon)

(polyacryl)

6.

5 ,

2 3 $\mu$ m

7.

1 ,

8.

1 ,

1 (polyamid) 500 800

9.

1 , , , ,

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1

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2

1

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2

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2

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10.

9

,

2 3 $\mu$ m 가0.2 1 $\mu$ m

11.

9

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12.

1

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1 ;

2

1

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2

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2

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2

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13.

12

3

14.

13

1

4 6μm

15.

1

,

(photo)

16.

15

1

(acryl)

PFCB (perfluorocyclobutane)

(polyimide).

(cytop). BCB(benzocyclobutene)

17

15

18.

16

1

2 3 $\mu$ m

19.

15

3

(black carbon)

(polyacryl)

20.

19

,  
2 3μm

21.

15

22.

15

, SF<sub>6</sub> SF<sub>4</sub> 가 O<sub>2</sub> 가 가 가

23.

15

, (polyamid) 500 800

24.

1

, , , , , , ,  
(photo), , , , , , ,

25.

24

, 2 3μm  
0.2 1μm 가

26.

24

,

2 3 $\mu$ m0.2 1 $\mu$ m

가

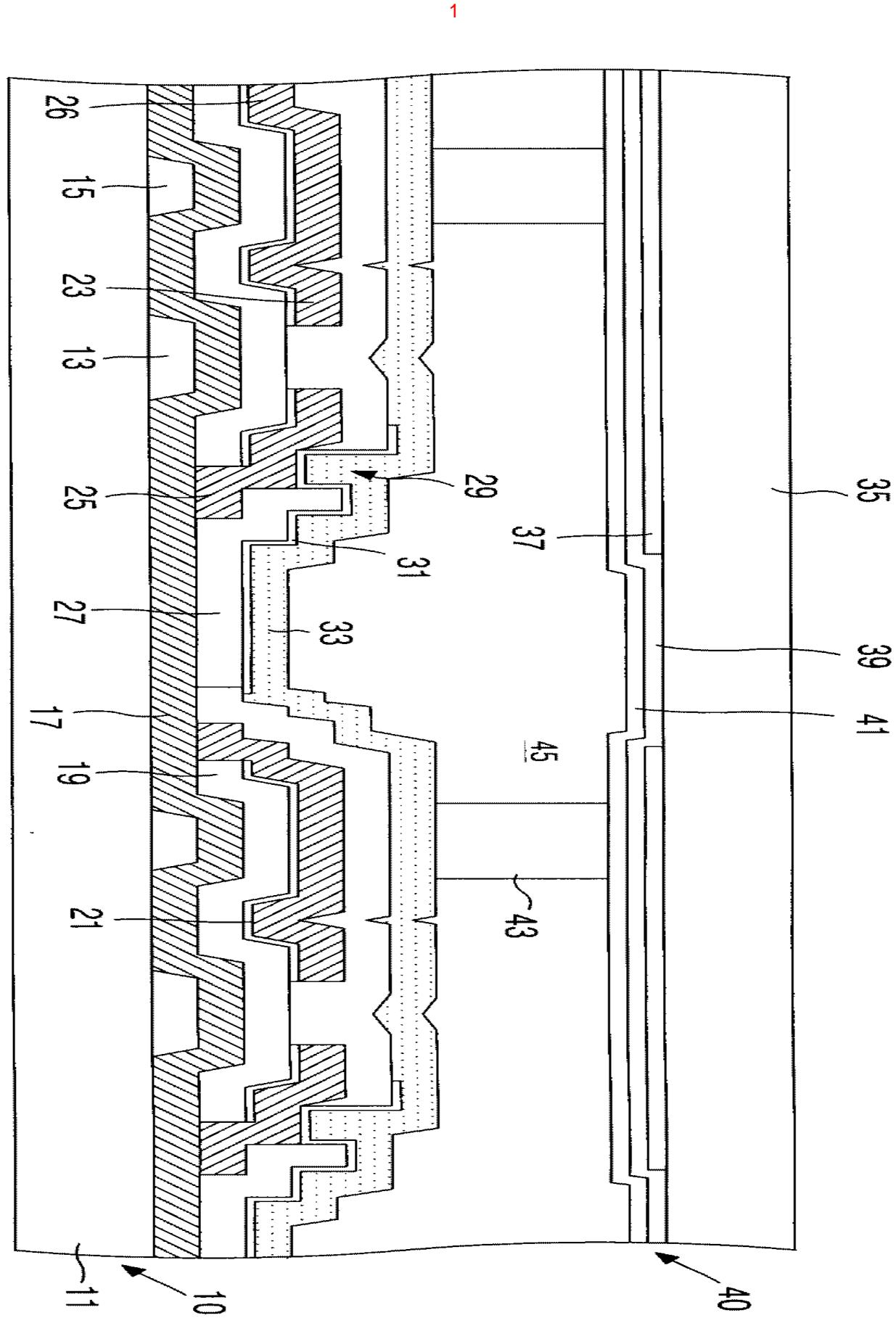
27.

1

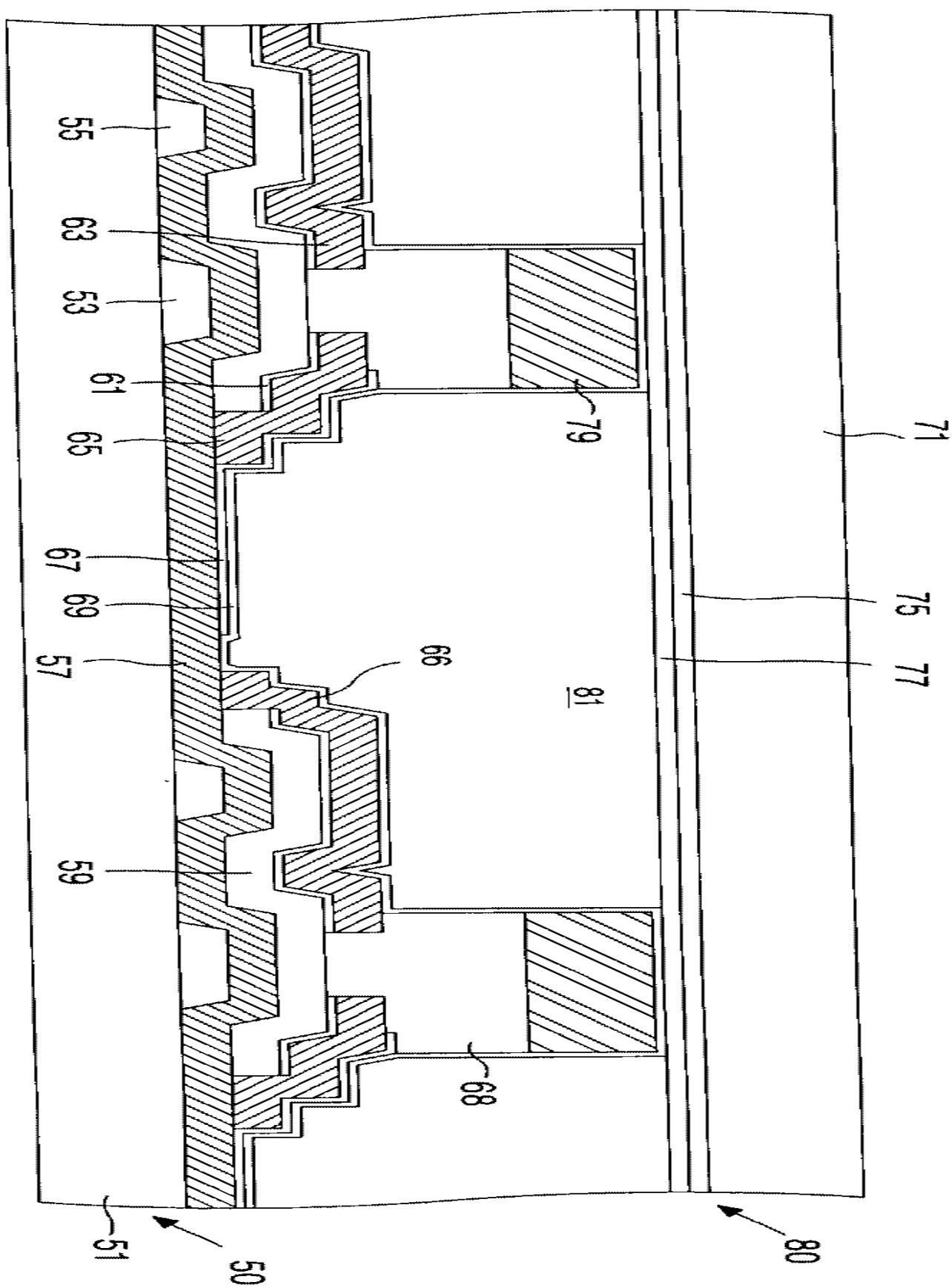
, , ,

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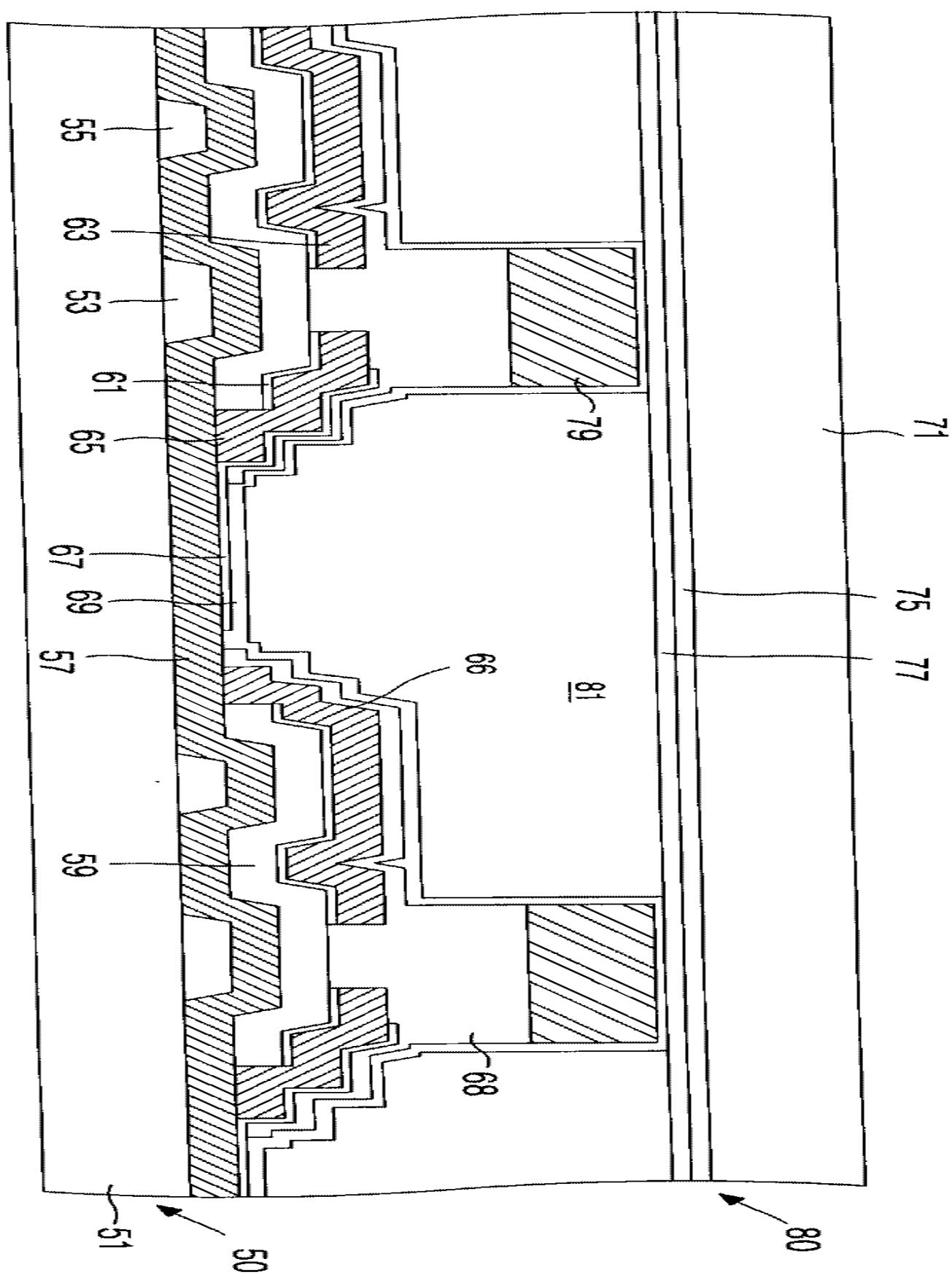
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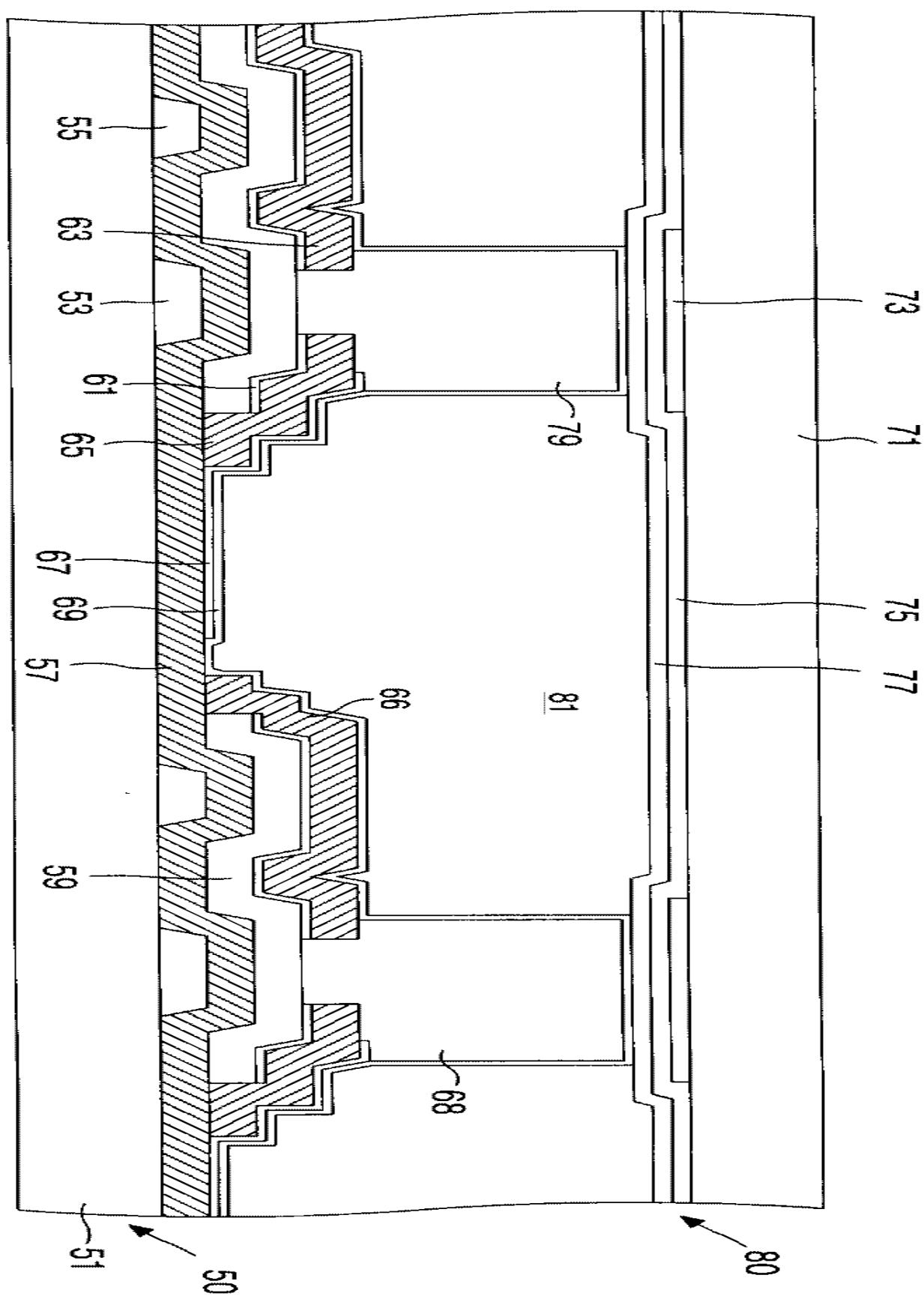
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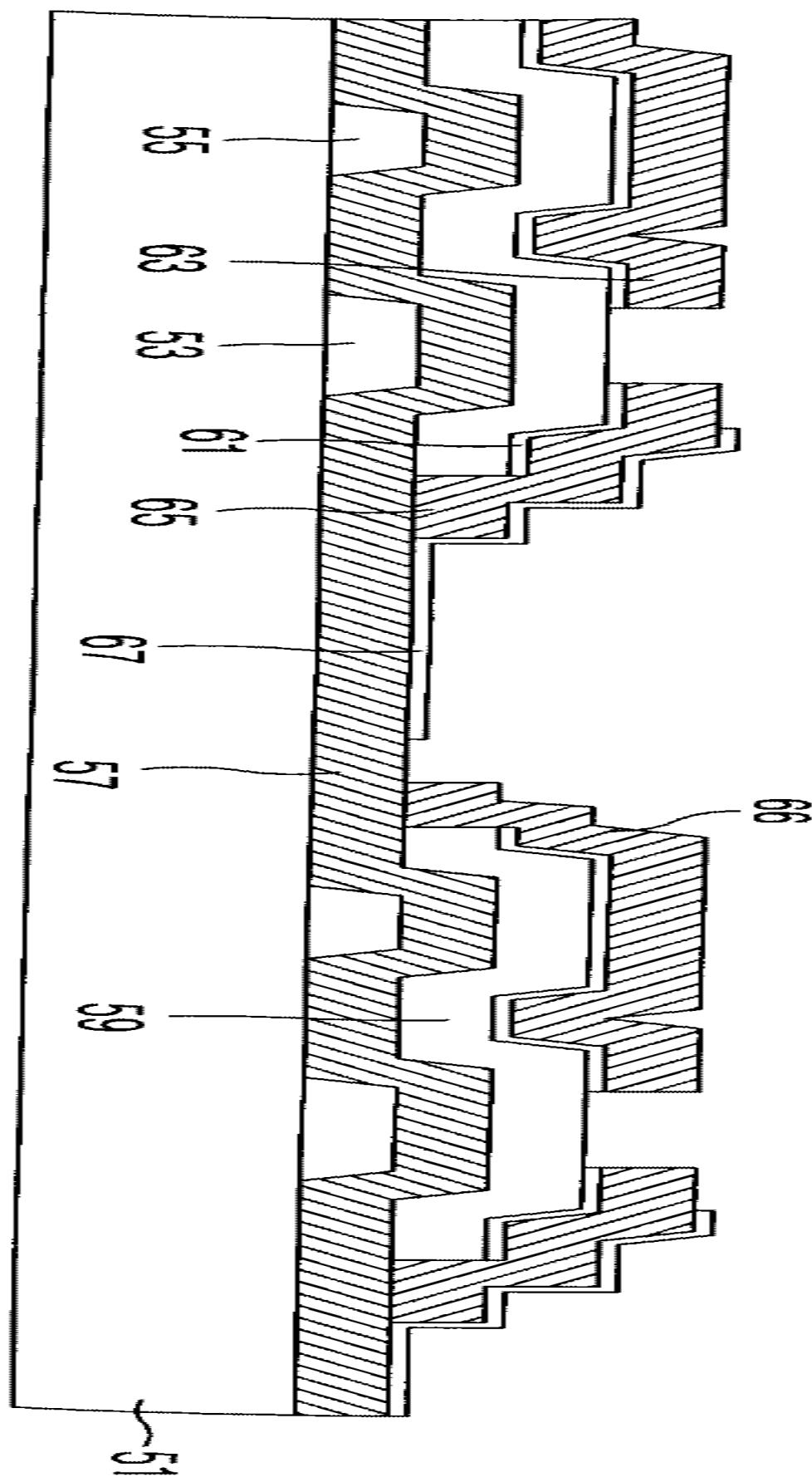
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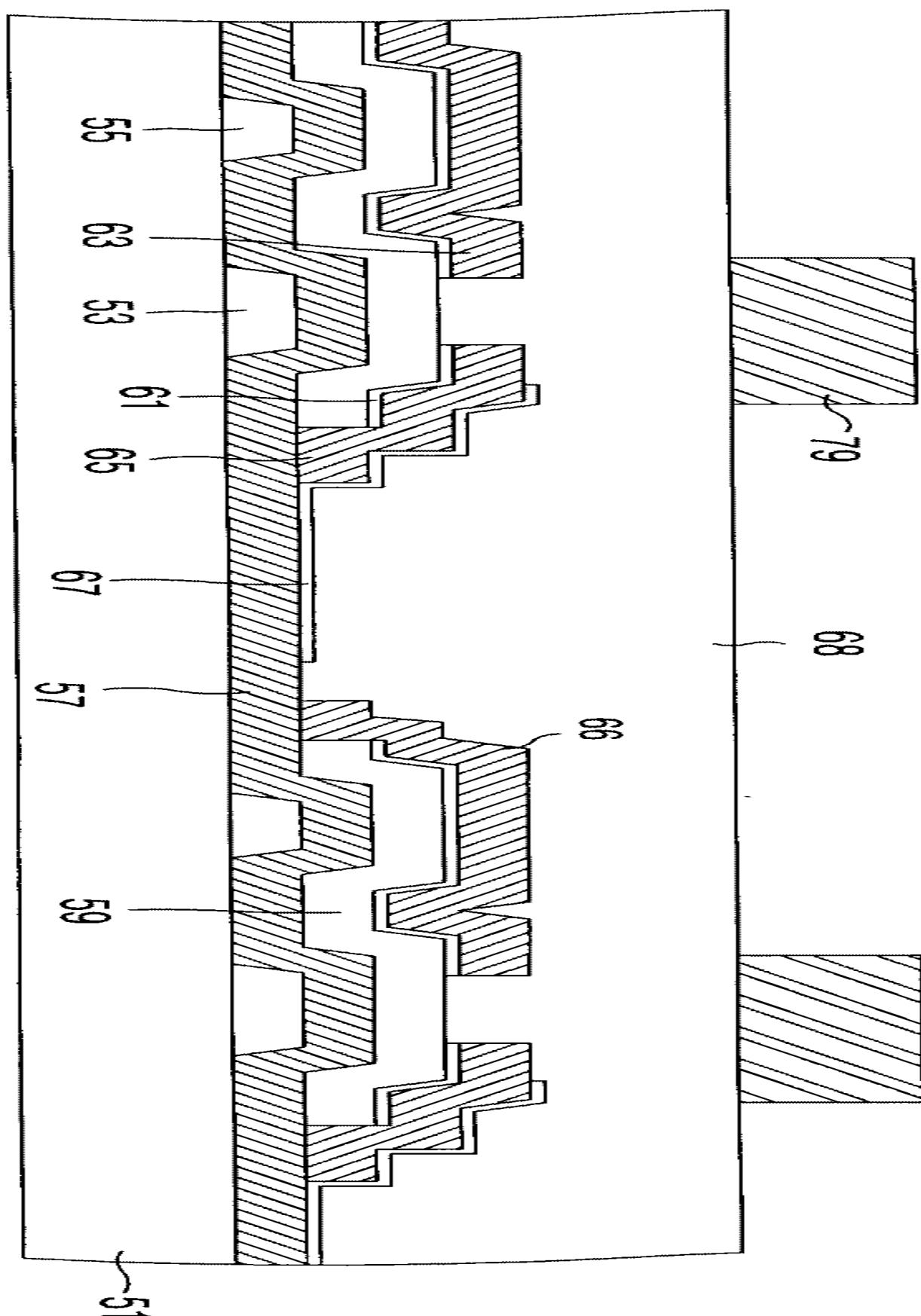
4



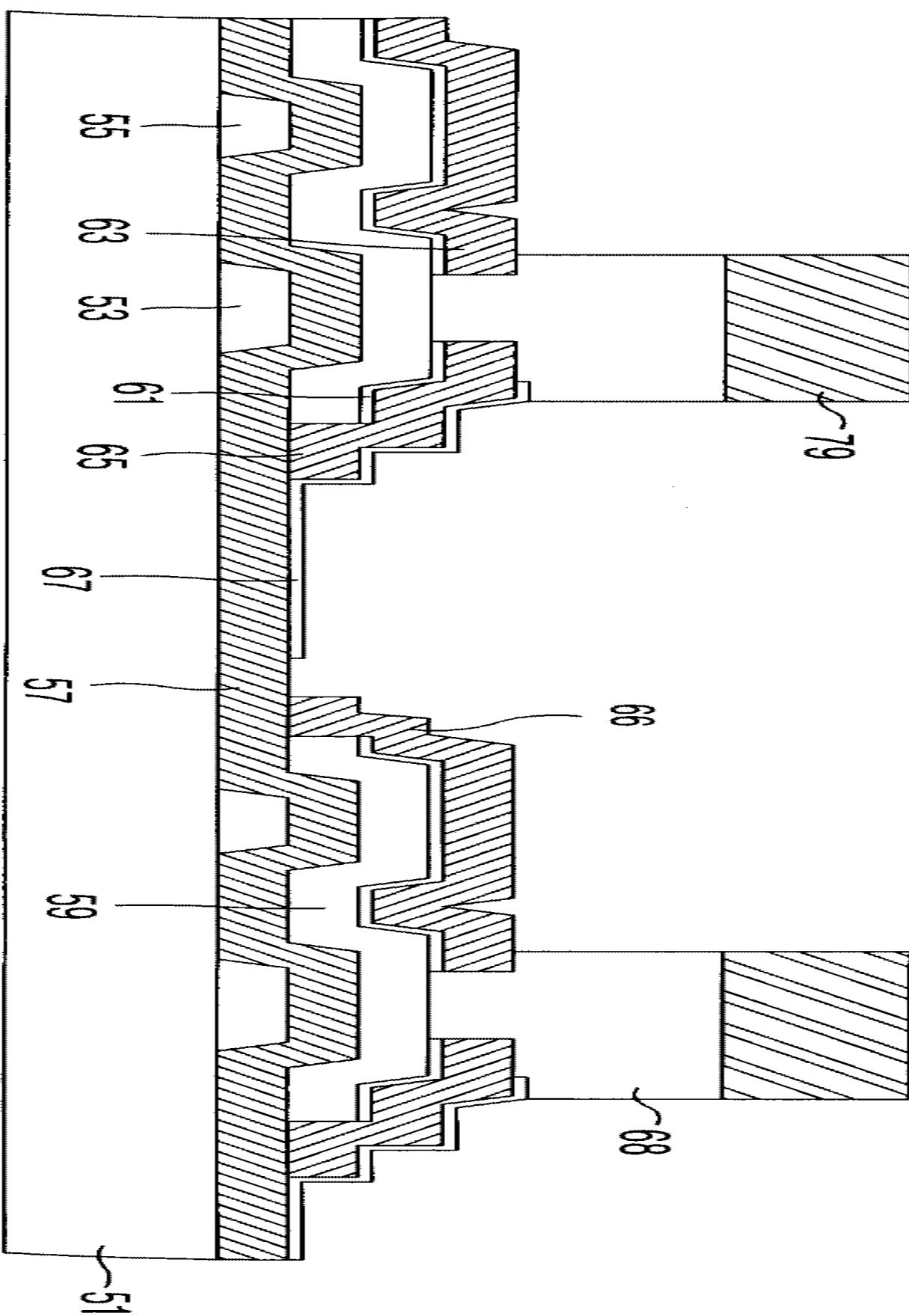
5a



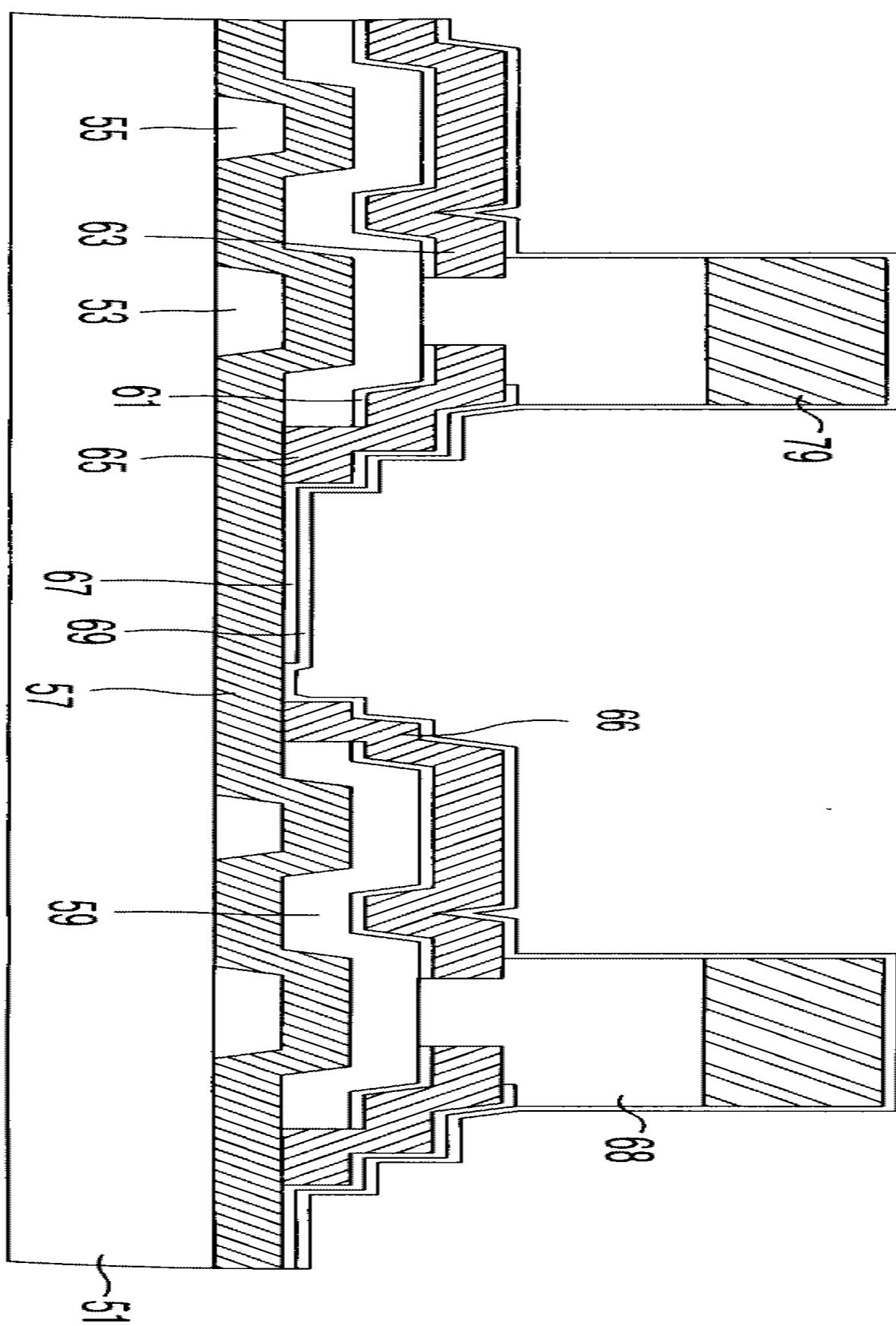
5b



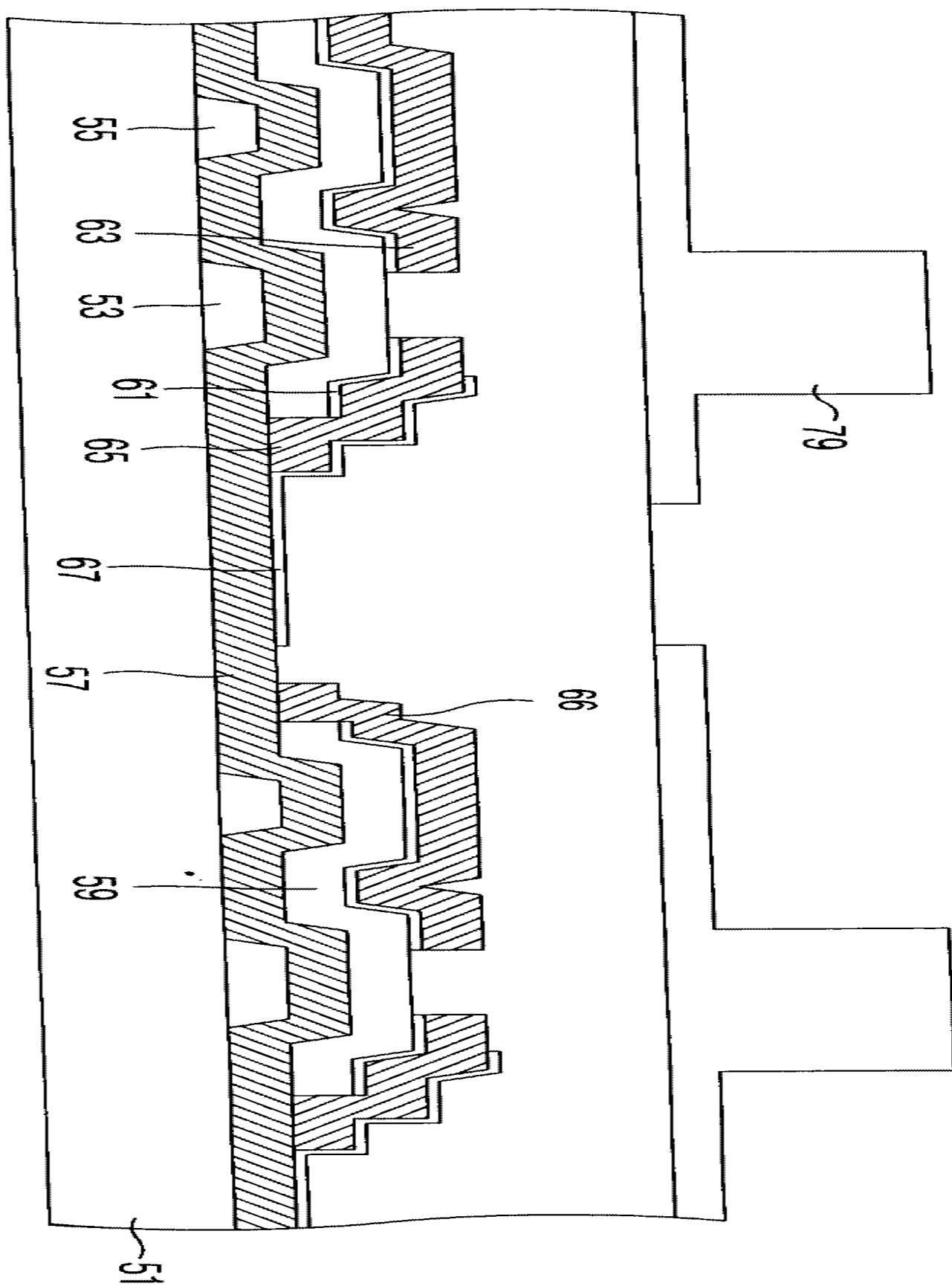
5c



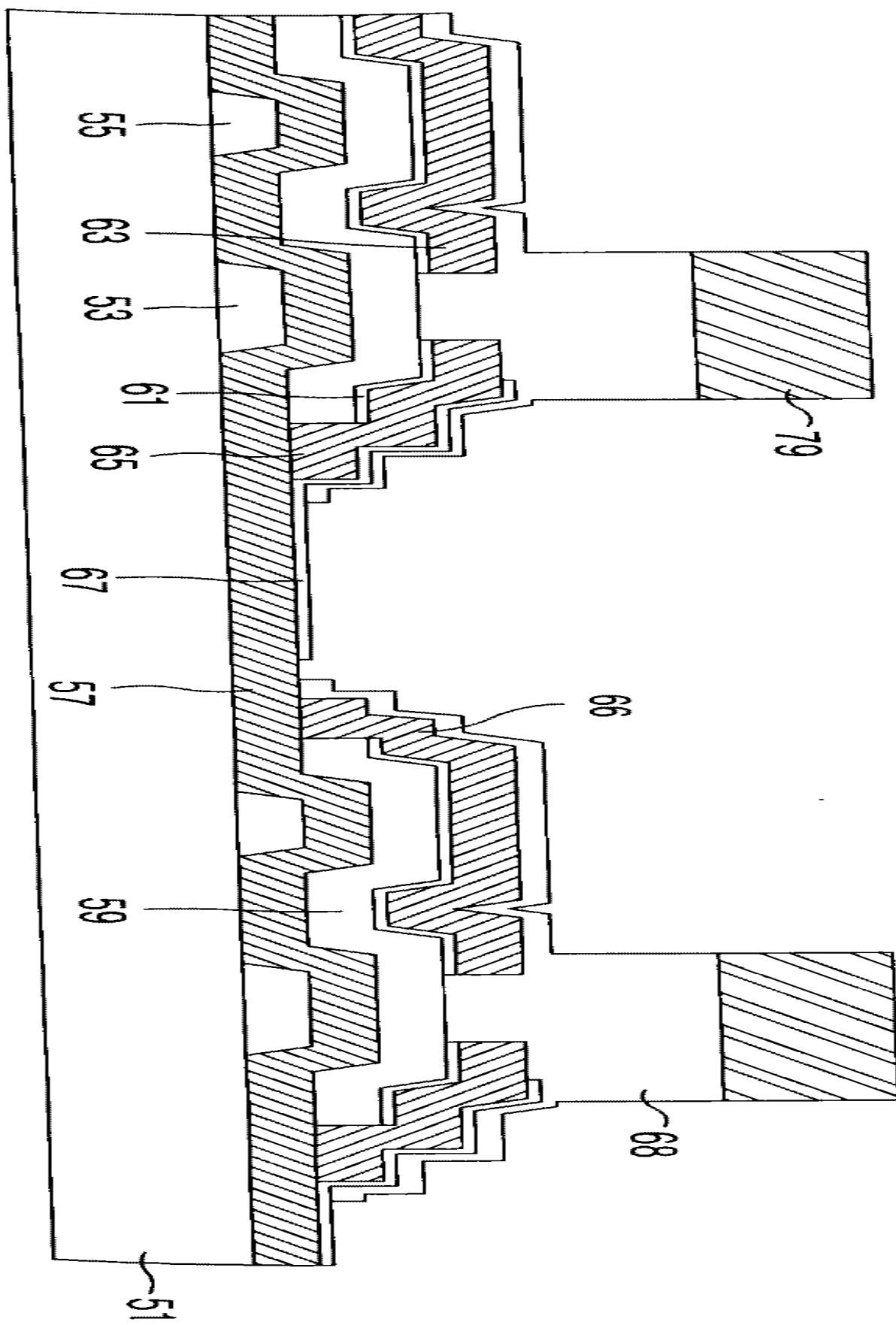
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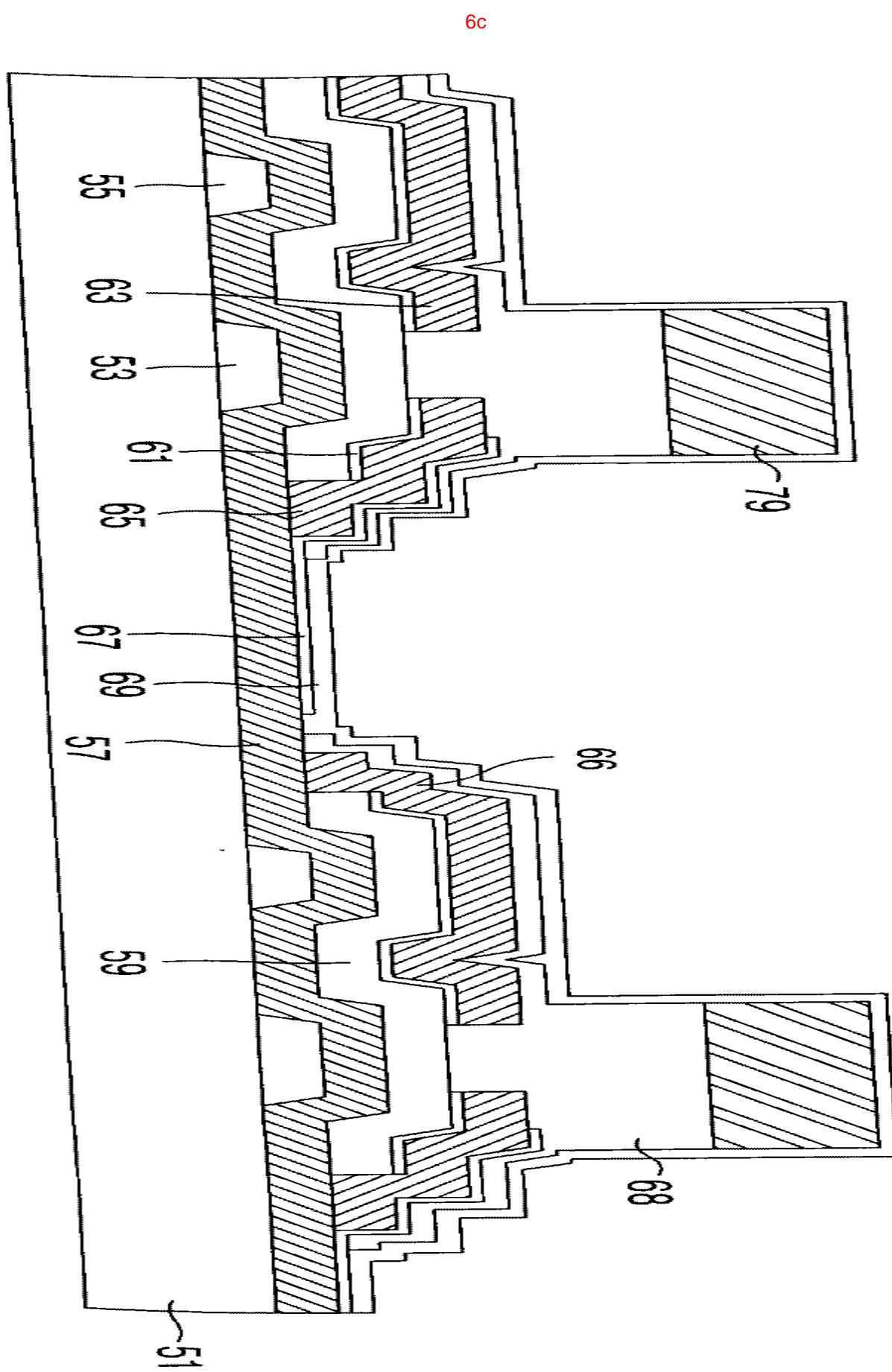


6a

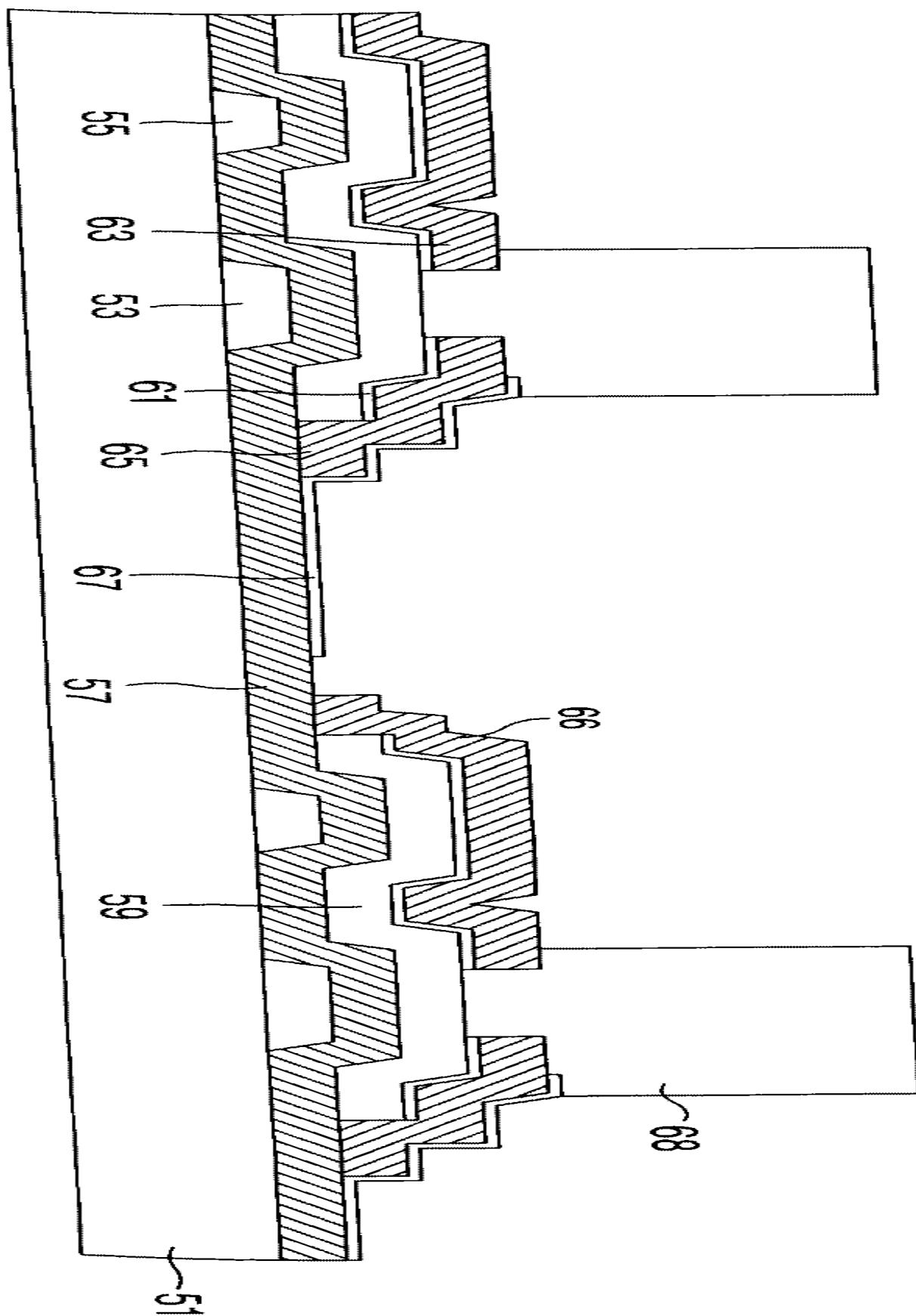


6b

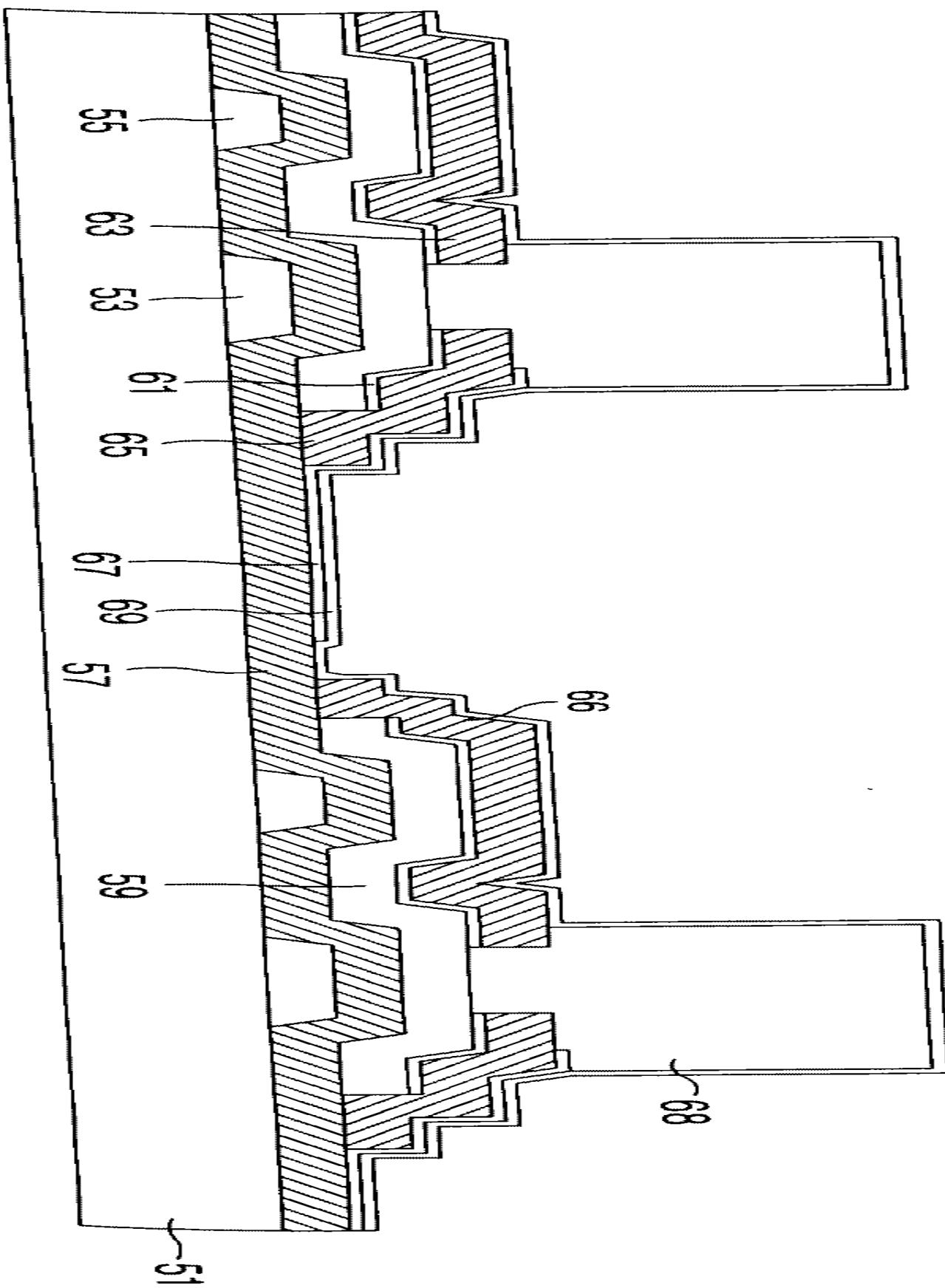




7a



7b



专利名称(译)	液晶显示面板及其制造方法		
公开(公告)号	<a href="#">KR1020010084454A</a>	公开(公告)日	2001-09-06
申请号	KR1020000009502	申请日	2000-02-25
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	AHN BYUNGCHUL 안병철		
发明人	안병철		
IPC分类号	G02F1/1339 G02F1/13 G02F G02F1/136 G02F1/1368 G02F1/1335		
CPC分类号	G02F1/13394 G02F1/133512 G02F1/1368		
代理人(译)	KIM , YOUNG HO		
其他公开文献	KR100685312B1		
外部链接	<a href="#">Espacenet</a>		

### 摘要(译)

本发明包括第一透明基板中的栅电极，栅极绝缘层，有源层，欧姆接触层以及在与下板中的像素区域对应的区域上形成的滤色器之间注入的液晶。形成在其上的保护层和光学屏蔽层形成在保护层和形成在像素电极上的第一取向层上，以覆盖保护层和光学屏蔽层：和面对第二透明基板的第二透明基板，有源层上的薄膜晶体管与像素电极的一部分重叠，该部分与薄膜晶体管上的像素区域接触，该像素区域由源极和漏极以及栅极线构成和数据线，形成连接到薄膜晶体管的栅电极和源电极并用漏电极限制像素区和栅绝缘层并且电连接到源电极和漏电极，并且由公共电极构成的上板形成它覆盖滤色器在第二透明基板的前侧和在公共电极上形成的第一取向层：和下板和上板。因此，黑色矩阵不需要上板，下板上形成保护层或下板上形成的光屏蔽层，上板的间隔距离可以有规律地保持2单元层的光屏蔽没有单独的垫片的层和保护层。并且由于直接连接像素电极和漏电极而无需接触，因此可以减少该过程孔。

