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(54) Hole transport material and method of manufacturing the hole transport material

(57) In an organic EL device, when a voltage is applied across an anode and a cathode, holes are moved in a hole transport layer and electrons are moved in an electron transport layer, and the holes and the electrons are recombined in a light emitting layer. In the light emitting layer, excitons are produced by energy released upon the recombination, and the excitons release energy in the form of fluorescence or phosphorescence or emit light when returning to the ground state. The hole transport material is used in the hole transport layer, in which the amount of cationic impurities and/or the amount of anionic impurities are controlled to be small, so that the decrease of light-emission luminance of the organic EL device is suppressed and excellent light emitting properties are maintained for a long period of time.

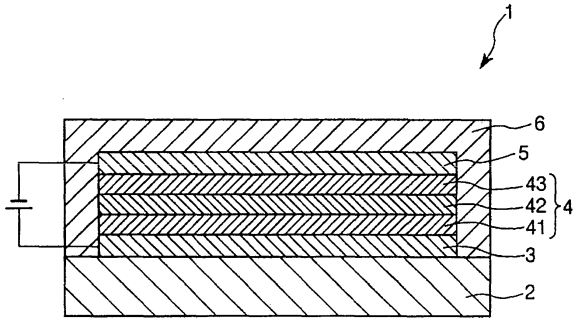

Fig. 1

EP 1 482 576 A3

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EUROPEAN SEARCH REPORT

Application Number
EP 04 25 3063

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	18 April 2005	Wolfbauer, G

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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EUROPEAN SEARCH REPORT

Application Number
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			TECHNICAL FIELDS SEARCHED (IPC)

The present search report has been drawn up for all claims

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The Hague	18 April 2005	Wolfbauer, G

CATEGORY OF CITED DOCUMENTS

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& : member of the same patent family, corresponding document

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 04 25 3063

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	空穴传输材料和制造空穴传输材料的方法		
公开(公告)号	EP1482576A3	公开(公告)日	2006-03-22
申请号	EP2004253063	申请日	2004-05-25
[标]申请(专利权)人(译)	精工爱普生株式会社		
申请(专利权)人(译)	SEIKO EPSON CORPORATION		
当前申请(专利权)人(译)	SEIKO EPSON CORPORATION		
[标]发明人	SHINOHARA YUJI ISHII RYUJI SHIMAZU MASAMITSU UEHARA MASAMITSU		
发明人	SHINOHARA, YUJI ISHII, RYUJI SHIMAZU, MASAMITSU UEHARA, MASAMITSU		
IPC分类号	H01L51/30 C09K11/06 H01L51/40 H01L51/50		
CPC分类号	H01L51/0037 H01L51/0003 H01L51/5048		
优先权	2003153539 2003-05-29 JP 2003206953 2003-08-08 JP		
其他公开文献	EP1482576A2		
外部链接	Espacenet		

摘要(译)

在有机EL器件中，当在阳极和阴极之间施加电压时，空穴在空穴传输层中移动并且电子在电子传输层中移动，并且空穴和电子在发光层中复合。在发光层中，激子由重组时释放的能量产生，并且激子以荧光或磷光的形式释放能量或当返回基态时发光。空穴传输材料用于空穴传输层，其中阳离子杂质的量和/或阴离子杂质的量被控制得很小，从而抑制了有机EL器件的发光亮度的降低。长时间保持优异的发光性能。

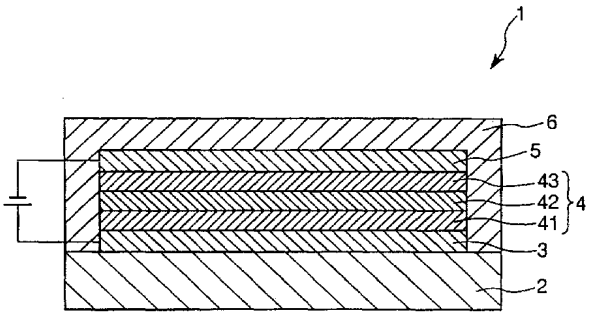

Fig. 1