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(54) **Electroactive polymers and devices made therefrom**

(57) An organic block polymer useful in an electrolu-
minescent polymer device, comprising:

(a) an emissive polymer block that is consistently conju-
gated along the backbone of the emissive polymer block;
and at least one of the following:

(b) a positive charge carrier polymer block that is con-
sistently conjugated along the backbone of the positive
charge carrier polymer block for transporting positive
charge carriers to the emissive polymer block so that the
positive charge carriers can combine with negative
charge carriers to generate light

(c) a negative charge carrier polymer block that is con-
sistently conjugated along the backbone of the negative
charge carrier polymer block for transporting negative

charge carriers to the emissive polymer block so that the
negative charge carriers can combine with positive
charge carriers to generate light, and

(d) a host polymer block that is consistently conjugated
along the backbone of the host block for providing a ma-
trix for emitter that affords Forster energy transfer and
minimization of concentration quenching effects

The emissive block copolymer comprises a fluorine
group and a diazine group fused to a ring benzene or a
thiophene group, the positive charge carrier polymer
block comprises a fluorene group and a triarylamine
group, and the host polymer block contains a fluorene
group.

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EUROPEAN SEARCH REPORT

Application Number
EP 08 15 1070

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
D,A	WO 00/46321 A (DOW CHEMICAL CO) 10 August 2000 (2000-08-10) * page 2, lines 6-29; claims 1-22 * * page 3, line 1 - page 8, line 7; table 1 * -----	1-10	INV. H01L51/30 H05B33/14 C09K11/06
D,A	WO 00/55927 A (TOWNS CARL ROBERT ;DELL RICHARD O (GB); CAMBRIDGE DISPLAY TECH (GB) 21 September 2000 (2000-09-21) * page 9 - page 26; claims 1-60 * -----	1-10	
A	US 5 621 131 A (KREUDER WILLI ET AL) 15 April 1997 (1997-04-15) * column 2 - column 7; claims 1-7 * -----	1-10	
A	WO 99/54385 A (DOW CHEMICAL CO) 28 October 1999 (1999-10-28) * page 7, line 21 - page 10, line 15; claims 1-11 * -----	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			H01L H05B C09K
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 15 April 2008	Examiner Wengeler, Heinz
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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15-04-2008

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专利名称(译)	电活性聚合物和由其制成的装置		
公开(公告)号	EP1921688A3	公开(公告)日	2008-05-21
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申请(专利权)人(译)	DOW GLOBAL科技股份有限公司.		
当前申请(专利权)人(译)	DOW全球科技有限责任公司		
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IPC分类号	H01L51/30 H05B33/14 C09K11/06 H01L51/50 C08G61/00 H01B1/12 H01L51/00		
CPC分类号	H01B1/124 C09K11/06 C09K2211/1416 C09K2211/1425 C09K2211/1433 C09K2211/1458 C09K2211/1483 H01L51/0036 H01L51/0038 H01L51/0039 H01L51/0043 H01L51/0059 H01L51/5012		
优先权	60/304336 2001-07-10 US		
其他公开文献	EP1921688A2 EP1921688B1		
外部链接	Espacenet		

摘要(译)

一种可用于电致发光聚合物器件的有机嵌段聚合物，包括：(a) 发光聚合物嵌段，其沿着发光聚合物嵌段的主链始终共轭；和至少下列之一：

(b) 正电荷载体聚合物嵌段，其沿着正电荷载体聚合物嵌段的主链始终共轭，用于将正电荷载体输送到发光聚合物嵌段，使得正电荷载体可以与产生光的负电荷载体

(c) 负电荷载体聚合物嵌段，其沿负电荷载体聚合物嵌段的主链始终共轭，用于将负电荷载体输送到发光聚合物嵌段，使得负电荷载体可与正电荷结合载流子产生光，和

(d) 主体聚合物嵌段，其沿着主体嵌段的主链始终共轭，用于提供发射体的基质，其提供福斯特能量转移和最小化浓度猝灭效应发光嵌段共聚物包含氟基团和二噁基团与环苯和噻吩基团耦合p，正电荷载体聚合物嵌段包含苄基和三芳基胺基，并且主体聚合物嵌段含有苄基。

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			TECHNICAL FIELD H01L H05B C09K

The present search report has been drawn up for all claims

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15 April 2008

Wengeler, Heinz

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1. priority or patentable underlying the invention
2. prior art document, but published on, or after the filing date
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