

9902020-8



IPDS

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification⁶:

H01M 6/18, C08J 5/22, H01B 1/12

A1

(11) International Publication Number:

WO 98/20573 ✓

(43) International Publication Date:

14 May 1998 (14.05.98)

(21) International Application Number: PCT/US97/19828 ✓

(22) International Filing Date: 31 October 1997 (31.10.97) ✓

(30) Priority Data: ✓

① 60/029,865 ✓

1 November 1996 (01.11.96) ✓

US ✓

② 60/042,186 ✓

2 April 1997 (02.04.97) ✓

US ✓

③ 60/052,550 ✓

15 July 1997 (15.07.97) ✓

US ✓

①

(71) Applicant: E.I. DU PONT DE NEMOURS AND COMPANY ✓
[US/US]; 1007 Market Street, Wilmington, DE 19898 (US). ✓ Published(72) Inventors: ① DOYLE, Christopher, Marc; 52 Bridle Brook Lane,
Newark, DE 19711 (US) ✓ ② LEWITTES, Mark, Evah; 17
Briar Road, Wilmington, DE 19803 (US) ✓ ③ PERUSICH,
Stephen, Albert; 2 Flint Road, Newark, DE 19711 (US). ✓④ ROELOFS, Mark, Gerrit; Skyline Orchard, 514 Hemlock
Drive, Hockessin, DE 19707 (US) ✓ ⑤ GRAJENDRAN, Govin-
darajulu; 16 Piersons Ridge, Hockessin, DE 19707 (US). ✓

(Follow PF 8)

(74) Agent: SIEGELL, Barbara, C.; E.I. Du Pont de Nemours and
Company, Legal Patent Records Center, 1007 Market Street,
Wilmington, DE 19898 (US). ✓(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY,
CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KG, KP,
KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX,
NO, NZ, PL, RO, RU, (SG), SI, SK, SL, TJ, TM, TR, TT,
UA, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD,
SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI
patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
SN, TD, TG). ✓

With international search report. ✓

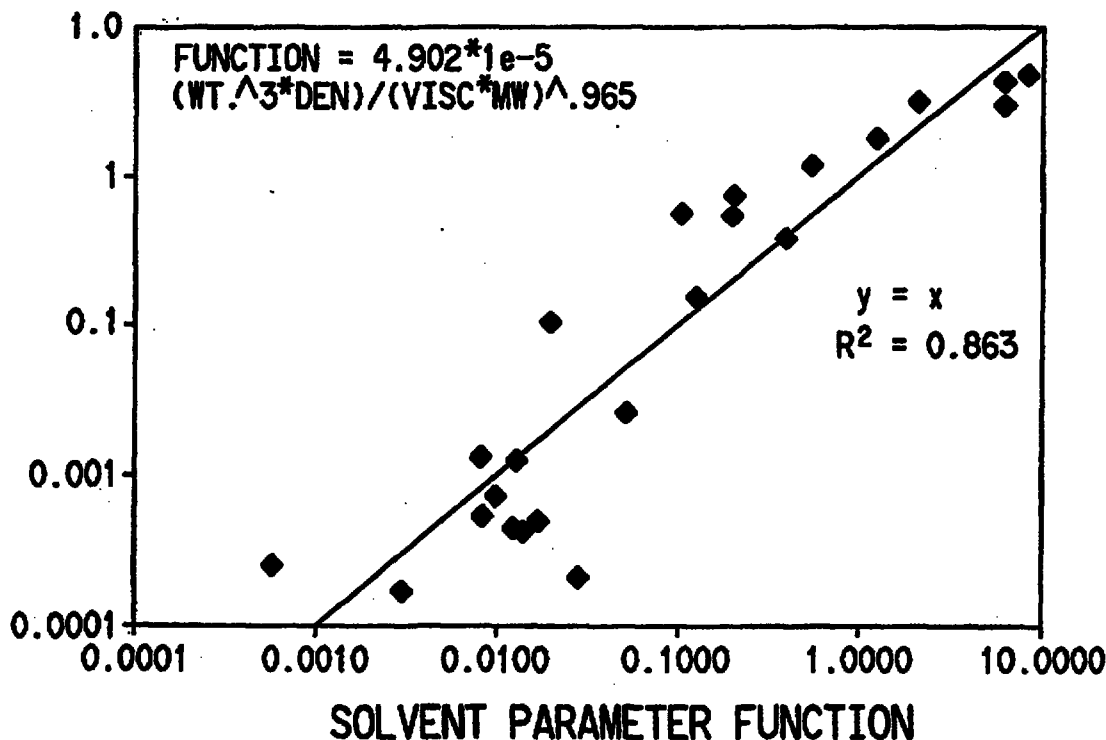
Before the expiration of the time limit for amending the
claims and to be republished in the event of the receipt of
amendments. ✓

3 PDs

1 Applⁿ.

5 Invs. (Follow PF 8)

(54) Title: HIGHLY CONDUCTIVE ION EXCHANGE POLYMER AND PROCESS ✓



(57) Abstract

Disclosed is a highly conductive polymer electrolyte membrane and a process for producing it. This invention also describes batteries which employ the polymer electrolyte membrane of this invention.