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(21) International Application Number: PCT/US96/11741 ✓ (22) International Filing Date: 15 July 1996 (15.07.96) ✓ (30) Priority Data: 08/589,944 23 January 1996 (23.01.96) US (71) Applicant: BELL COMMUNICATIONS RESEARCH, INC. [US/US]; 445 South Street, Morristown, NJ 07960-6438 (US). (72) Inventors: GOZDZ, Antoni, S.; 46 Danbury Road, Tinton Falls, NJ 07754 (US). WARREN, Paul, C.; P.O. Box 212, Far Hills, NJ 07931 (US). (74) Agents: WHITE, Lionel, N. et al.; c/o International Coordinator, Room 1G112R, 445 South Street, Morristown, NJ 07960-6438 (US).		(81) Designated States: AU, BR, CA, CN, JP, KR, MX, SG, VN, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: MATERIAL AND METHOD FOR LOW INTERNAL RESISTANCE LI-ION BATTERY (57) Abstract An electrically-conductive collector element (23) in a polymeric laminate lithium ion rechargeable battery is cleaned of surface oxides and coated with an adherent conductive polymer film (34) which is substantially inert to battery electrolyte components and prevents recurrent formation of insulative collector surface oxides, thereby maintaining effective electrode/collector electrical conductivity and significantly reducing internal battery resistance.		