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(54) Title: RECHARGEABLE BATTERY STRUCTURE AND METHOD OF MAKING SAME ✓

(57) Abstract

A rechargeable battery comprises a laminate electrolytic cell in which a flexible plasticized polymer hybrid electrolyte/separator layer is interposed between positive and negative electrode layers of lithium-ion intercalating polymeric matrix compositions bearing respective current collector foils (11, 19). An elongate laminar cell (10) is formed into a unified battery by means of an initial transverse fold (23) disposing one electrode/collector within the structure and with subsequent sequential folds (25, 27, 29) spiralling the cell, without need for interposed insulation, outwardly toward the electrode ends where the collectors accommodate battery terminals (22, 24). Immersion of the structure in a solvent extracts the polymer plasticizer which is subsequently replaced by contact with lithium salt solution electrolyte to activate the battery.

