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El-Afandi et al.

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(54) **COMPOSTABLE MULTILAYER STRUCTURES, METHODS FOR MANUFACTURE AND ARTICLES PREPARED THEREFROM**

(75) Inventors: **Ali Zakareya El-Afandi**, Woodbury; **Patrick Richard Gruber**, Blaine; **Jeffrey John Kolstad**, Wayzata; **James Lunt**, Minnetonka; **Christopher M. Ryan**, Dayton, all of MN (US); **James Zakareya Nangeroni**, Doylestown, PA (US); **Nancy Uzelac Buehler**, Minneapolis, MN (US); **Mark Hartmann**, Minnetonka, MN (US); **Jed Richard Randall**, Minneapolis, MN (US); **Andrea Lee Brosch**, Eden Prairie, MN (US)

(73) Assignee: **Cargrill, Incorporated**, Minneapolis, MN (US)

(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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(58) **Field of Search** 428/215, 34.2, 428/35.7, 480, 481; 264/555, 563, 564, 572, 173.11, 173.12, 173.15; 156/294.11, 244.24; 528/354

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Primary Examiner—Vivian Chen
(74) *Attorney, Agent, or Firm*—Merchant & Gould P.C.

(57) **ABSTRACT**

A compostable multilayer film includes a core layer having a first surface and a second surface, a first blocking reducing layer covering the first surface of the core layer, and a second blocking reducing layer covering the second surface of the core layer. The core layer comprises a lactic acid residue-containing polymer having a glass transition temperature (Tg) below 20° C. At least one of the first and second blocking reducing layers comprise a semicrystalline aliphatic polyester. The core layer may be peroxide modified polylactide polymer which exhibits bridging between polylactide polymer chains.

24 Claims, 2 Drawing Sheets