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Lee et al.

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(54) **METHOD FOR PREPARING TRANSPARENT CONDUCTIVE THIN FILM BY RAPID THERMAL ANNEALING METHOD**

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(*) **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.

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(58) **Field of Search** 427/126.3, 165, 427/168, 169, 419.3, 376.2, 374.1, 398.3, 398.4, 427, 428, 240, 443.2

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(57) **ABSTRACT**

The present invention relates to a transparent conductive thin film and a method for the preparation of the same., and more particularly to a method for the preparation of a transparent conductive thin film comprising the steps of a) preparing a sol solution of antimony-tin oxides (ATO) or indium-tin oxides (ITO), b) forming a transparent coating layer on an outer surface of a cathode ray tube using the sol solution, and c) rapidly increasing a temperature of the transparent coating layer to a predetermined temperature of 300 to 1200° C., and rapidly cooling the transparent coating layer either immediately or after maintaining the predetermined temperature for up to 20 seconds, and a transparent conductive thin film prepared by this preparation method, i.e., a transparent conductive thin film which not only has superior conductivity, high hardness, and non-reflectivity but also saves production process time and increases production process effectiveness, and a method for the preparation of the same.

16 Claims, 3 Drawing Sheets

