Design and preparation of binary-binary SnO\textsubscript{2}-ZnO:F/MgF\textsubscript{2}/SiO\textsubscript{2} transparent conducting oxide coatings

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Abstract
In this study, we prepared the binary-binary TCO compounds of SnO\textsubscript{2}-ZnO by the spray pyrolysis technique. We also investigated the role of MgF\textsubscript{2}/SiO\textsubscript{2} antireflection coatings in reducing optical reflectance in the visible region of TCO. Before preparation, we simulated the optical transmition of the films for optimizing the layer thicknesses. The results of this study showed increasing of optical transmittance in the visible region of TCO by adding antireflection coating layers.

Keywords: TCO, ZnO, SnO\textsubscript{2}, antireflection coating

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