

BPI Review Form 070520

Book Name:	<u>Theory and Applications of Engineering Research</u>
Manuscript Number:	Ms_BP_7314C
Title of the Manuscript:	Review: Recent advancement in application of Corona Charge Deposition Technique in Thin Film Industry
Type of the Article	Book chapter

BPI Review Form 070520

PART 1: Review Comments

	Reviewer's comment	Author's comment (If agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. Authors must write his/her feedback here)
<p>Is the manuscript important for the scientific community? Please write a few sentences explaining your answer</p>	<p>The book chapter "Review: Recent Advancement in Application of Corona Charge Deposition Technique in Thin Film Industry" provides a comprehensive overview of the applications and developments in the use of corona charge deposition techniques across various sectors of the thin film industry. It outlines the historical background, methodological advancements, current applications, and potential challenges and future directions. The review highlights the technique's significance in device characterization, improvement in the efficiency of Si-based solar cells, advancements in non-contact metrology, innovative device cooling methods, and powder coating technologies for lithium-ion batteries. While the overall tone of the review is positive, emphasizing the technique's contributions to the semiconductor industry, it also identifies areas needing improvement such as detailed experimental procedures and enhancements in the abstract to better encapsulate the chapter's scope and findings.</p>	
<p>Is the title of the article suitable? Do you have any alternative Title in your mind?</p>	<p>Yes it is suitable.</p>	
<p>Is the abstract of the article comprehensive? If your answer is No, please provide suggestions</p>	<p>No the abstract should improved and it should be given more quantitative details.</p>	
<p>Do you think the English quality of the article is suitable for scholarly communications? If your answer is No, please provide suggestions</p>	<p>Yes it is suitable for scholarly communications.</p>	
<p>Please provide your comments regarding the appropriateness of different sections of the manuscript.</p>	<p>I have some suggestions for improving this book chapter. First, clearly summarize the main ideas with findings quantitative details results should be given in the "Abstract" section.</p> <p>Positive Aspects:</p> <ul style="list-style-type: none"> • The chapter thoroughly explores the advancements in the corona charge deposition technique, highlighting its growing importance in the thin film industry. It provides valuable insights into the technique's applications, from semiconductor device characterization to improvements in solar cell efficiency and beyond. • The discussion on innovative applications, such as device cooling with corona charge and its use in powder coating for lithium-ion batteries, demonstrates the technique's versatility and potential for industry-wide impacts. <p>Areas for Improvement:</p> <ul style="list-style-type: none"> • The abstract lacks detailed quantitative results and a clear summary of the main findings, which is crucial for readers to grasp the significance and outcomes of the review at a glance. • The introduction, particularly sections on the study of SiO₂ film and oxidation under corona discharge, and device cooling with corona charge, needs to be enhanced to provide a stronger foundation for the chapter. A more detailed explanation of the concepts and their relevance to the field would better set the stage for the subsequent discussions. <p>Overall Evaluation:</p> <ul style="list-style-type: none"> • This book chapter presents a comprehensive review of the corona charge deposition technique's application in the thin film industry, highlighting its 	

BPI Review Form 070520

	<p>importance and versatility. While it successfully outlines recent advancements and potential applications, improvements in the abstract and introduction would greatly enhance its accessibility and impact. By addressing these areas, the chapter could offer clearer insights into the technique's contributions to the thin film industry and its future directions.</p> <p>In the "Experimental" section, there should be some infographics about the laboratory describing the application in detail. These graphs should summarize the work done graphically.</p>	
<p>Do you think that the references in the manuscript are proper, recent and sufficient? If you have any suggestions, please write here.</p>	<p>References are strong enough for a book chapter. But the text could be strengthened therefore I suggest that a appropriate reference is given in the text that Kelvin Probe, a surface potential analyzing technique:</p> <ol style="list-style-type: none"> 1. Kelvin Probe [28][Need extra REF.] was used to measure the surface potential, in which positive as well as negative corona discharge was.....The following article should be added as reference to that line: "Analysis of ITO surface modified with aromatic-based self-assembled molecules" 2. The line « the first non-contact electrical measurement was performed in 1881 [28],.....should be corrected. It is not related with Ref 28. 	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Are there ethical issues in this manuscript?</p>	<p>(If yes, Kindly please write down the ethical issues here in details)</p>	

Reviewer Details:

Name:	Ali Kemal Havare
Department, University & Country	Toros University, Turkey