CESIUM ION DOPED NICKEL OXIDE LAYERS FOR INVERTED PEROVSKITE SOLAR CELLS

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In order to improve the performance of the inverted perovskite solar cells, it is necessary to understand the influence of the cesium ion doped to the NiOx layer as hole transport layer. In this presentation, detailed analysis results of NiOx layer doped with cesium ion are reported. Furthermore, inverted perovskite solar cells were fabricated using the prepared NiOx layer, and the influence of doping amount of cesium on performance was investigated.

\textit{J-V} characteristics of inverted perovskite solar cells using the NiOx layer prepared by doping cesium are shown Figure 1. It was found that by annealing the NiOx layer, the values of $J_{sc}$ and $FF$ were improved. As a result, conversion efficiency has improved. We will report the reason why the conversion efficiency is improved by carrying out the detailed analysis of NiOx layers.

![Graph showing J-V characteristics of inverted perovskite solar cells](image)

Figure 1 \textit{J-V} characteristics of inverted perovskite solar cells of pristine (blue dashed line) and annealed (red solid line).

\textbf{Acknowledgements}

This work was supported by New energy and industrial Technology Development Organization (NEDO), Japan.

We are pleased to thank the staff of the NewSUBARU facility for excellent support.