

歪んだ単純金属酸化物における超軽いキャリア有効質量

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Extremely Light Carrier-Effective Mass in a Distorted Simple Metal Oxide

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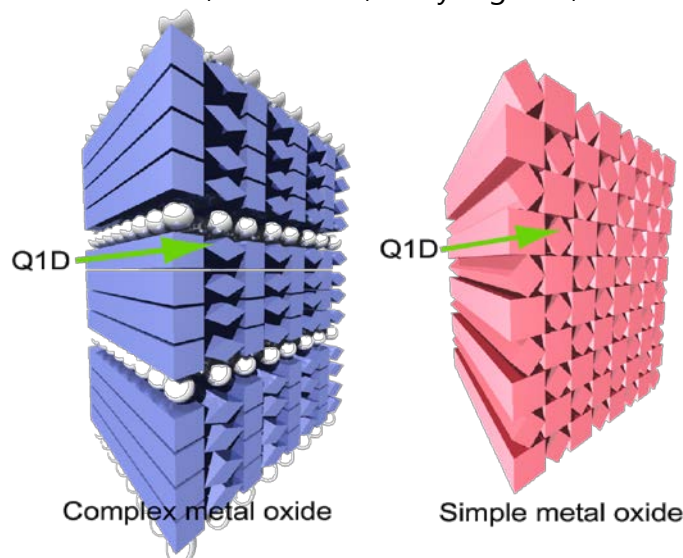


FIG. 1. Schematic crystal toy models of (left) complex metal oxide and (right) simple metal oxide. In this study, we focused NbO_2 as the simple metal oxide.

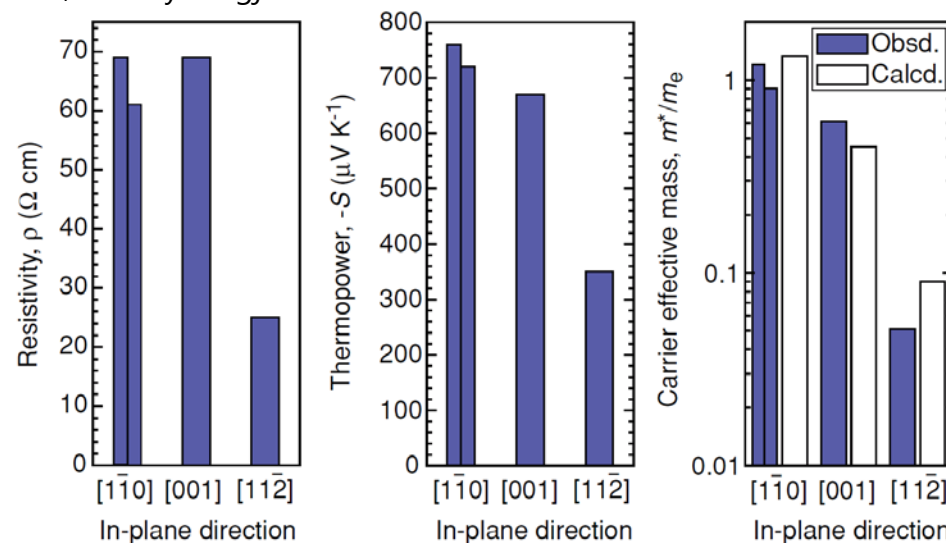


FIG. 2. Carrier electron transport properties at room temperature. (left) resistivity, (center) thermopower, (right) carrier effective mass. The carrier effective mass in the [11-2] direction is lighter than the other directions.

内蔵された歪構造によるルチル構造の NbO_2 における高速電子輸送パスを見出しました。

Fast electron transport path was found in a rutile structured NbO_2 driven by built-in structural distortion.