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Photocurrent effect of epitaxial tetragonal-like BiFeO$_3$
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CHAN-HO YANG, Department of Physics, KAIST — Photovoltaic ef-
fect in ferroelectrics has recently received many attentions due to poten-
tial applications related to optoelectronic devices and solar cells. Here we
report photocurrent effect of highly elongated “tetragonal-like” BiFeO$_3$
thin films grown on LaAlO$_3$ (001) substrates using pulsed laser depositions
technique. Spatially resolved photocurrent measurements are per-
formed with varying photon wavelength and polarization. Being com-
bined with local ferroelectric domain structure by piezoresponse force
microscopy, the spatially resolved techniques make a pathway to ex-
plore inter-relation between electric polarization and photon polariza-
tion. This study might deepen our understanding of light induced
conduction phenomena in ferroelectrics.

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