

FIELD EFFECT TRANSISTOR, DISPLAY ELEMENT, IMAGE DISPLAY
DEVICE, AND SYSTEM

ABSTRACT

A field-effect transistor including: a gate electrode, which is
5 configured to apply gate voltage; a source electrode and a drain electrode,
which are configured to transfer an electrical signal; an active layer,
which is formed between the source electrode and the drain electrode; and
a gate insulating layer, which is formed between the gate electrode and
the active layer, the active layer including at least two kinds of oxide
10 layers including layer A and layer B, and the active layer satisfying at
least one of condition (1) and condition (2) below:
condition (1): the active layer includes 3 or more oxide layers including 2
or more of the layer A; and
condition (2): a band-gap of the layer A is lower than a band-gap of the
15 layer B and an oxygen affinity of the layer A is equal to or higher than an
oxygen affinity of the layer B.

Fig. 1