



Highlighting work by a group of researchers led by Prof. Dr Hyung Koun Cho from Intelligent Semiconductor Discovery Laboratory, Sungkyunkwan University in Korea.

Intensive harmonized synapses with amorphous Cu_2O -based memristors using ultrafine Cu nanoparticle sublayers formed *via* atomically controlled electrochemical pulse deposition

We report a creative structure comprising Cu_2O active layers with ultrafine Cu nanoparticles *via* electrochemical pulse deposition for artificial synapses. This work shows a strong harmony between the resistance-switching characteristics and the analog operation of the active layer. The multiple filaments with uniform distribution repeat switching operation in a fixed position using an ultrafine Cu nanoparticles (U-Cu NPs) interlayer that can be controlled atomically through electrochemical pulse deposition (EPD).

As featured in:



See Hyung Koun Cho *et al.*,
Mater. Horiz., 2023, 10, 3382.