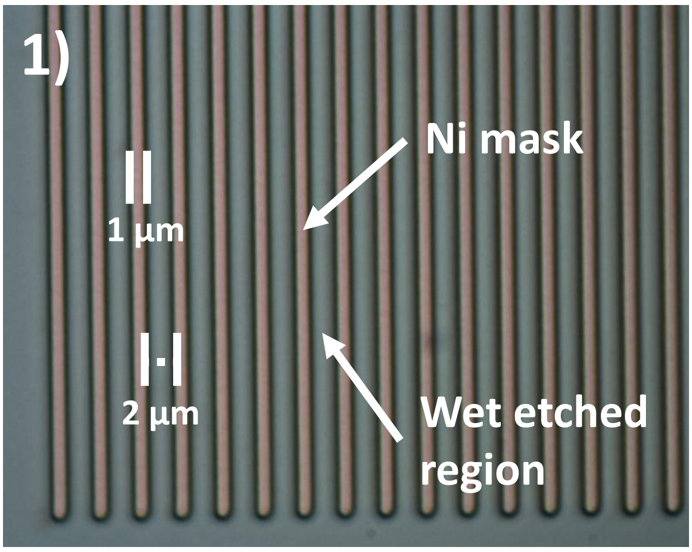

Fig. 1) Demonstration of nickel wet etching down to 1 µm.

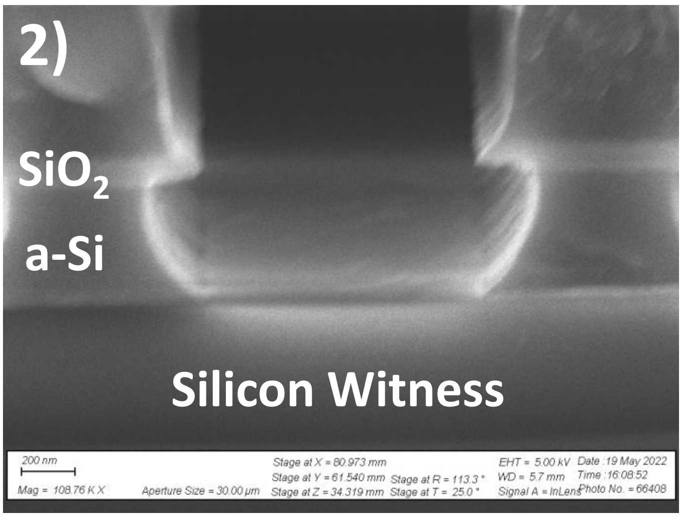

Fig. 2) XeF$_2$ undercut of the amorphous silicon layer for the lift-off process.

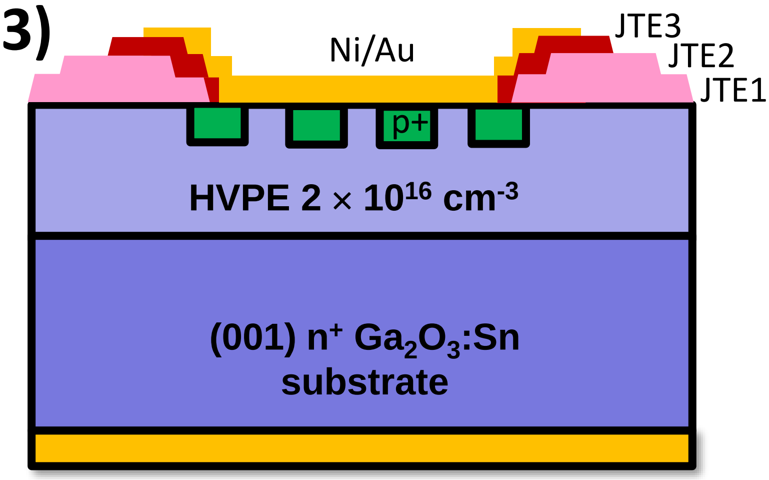

Fig. 3) Schematic of the Ga$_2$O$_3$ NiO JBS diode with NiO junction termination extension.

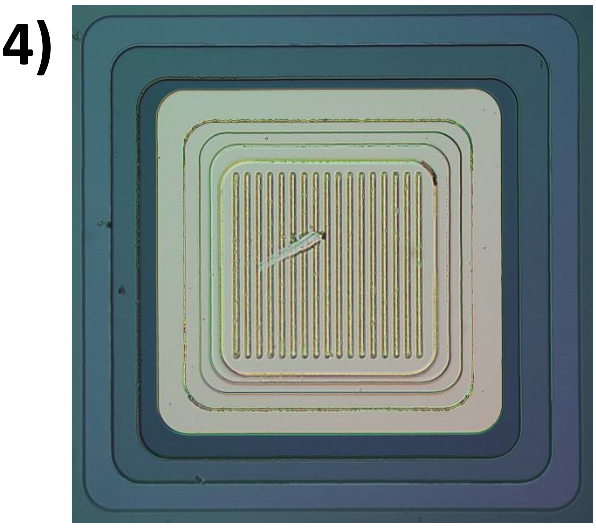

Fig. 4) Fully fabricated Ga$_2$O$_3$ NiO.

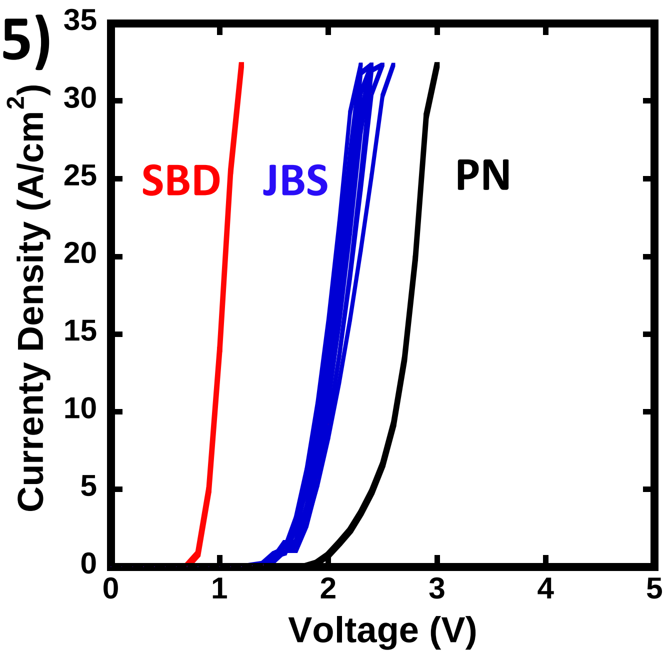

Fig. 5) Forward *J-V* characteristics.

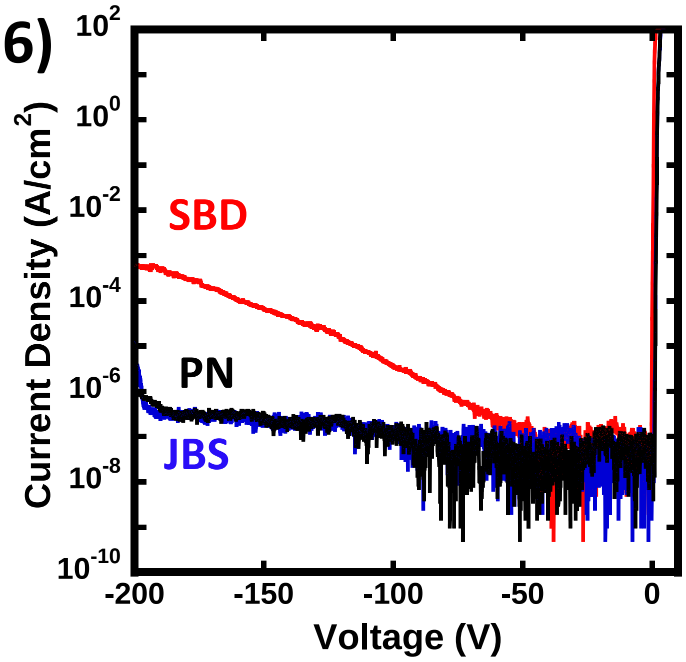

Fig. 6) Reverse *J-V* characteristics.

Abstract References:

[1] Spencer, J.A., et al. *Applied Physics Reviews*, 9.1 (2022): 011315 2022
[2] Lv, Y., et al. *IEEE Transactions on Power Electronics* 36.6 (2020): 6179-6182
[3] Gong, HH., et al. *Applied Physics Letters* 118.20 (2021): 202102
[4] Wang, B., et al. *IEEE Electron Device Letters* (2022).