Editor of Signal Processing

Dear Editor,

I would like to submit the manuscript, “Full-automatic defects classification and restoration of STM images”. The main objective of this work is to propose a new method to restore scanning tunneling microscope(STM) images full-automatically without any manual intervention. This method first using a DCNN classification networks to predict what defects a pending image have, and then using several unique self-positioning restoration algorithms which corresponds each kind of defects respectively to restore the pending image in order. The algorithms consist of imaging inpainting, image low-rank recovery and periodic noise de-nosing. It would be very kind, if you could consider this manuscript to be published in *Micron*.

I certify that this manuscript, or any part of it, has not been published and will not be submitted elsewhere for publication while being considered by the journal *Micron.*

May I ask for your kind consideration for this purpose?

I am very appreciated by your kindness. Looking forward to hearing from you.

Sincerely yours,

Xin Wang, on behalf of co-authors.