

Figure 4. New exfoliation method based on ultraclean icros UV tape. After peeling the layer, we deposited it on a silicon wafer and then apply a UV flash to deactivate the glue. The surface of the wafer is now very clean and free of glue, thus implying a very clean transfer to the layer to the grid. After a final wash in an ethanol bath, KOH is applied to transfer the layer to the carbon holey carbon TEM grid. The HAADF image shows a very clean specimen.

In Figure 5 (a-d), we show the cleanliness of the wafer surface after the transfer of the layer onto the wafer using different tapes. Figure 5(a) is the one obtained using the ultra-clean icros UV tape; from Figure 5(b) to 5(c), other tapes were used as indicated in the figure. It seems obvious that the surface free of residual VAX is the one in (a). The HAADF reported in Figure 8 shows a very clean grating.

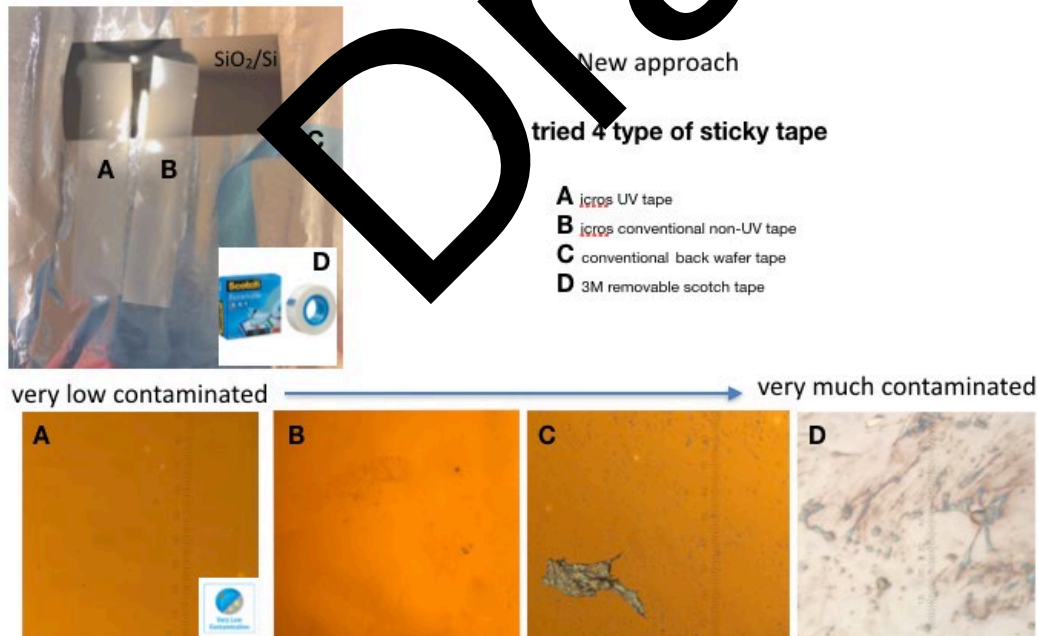


Figure 5. Comparison of Si wafer surface after layer transfer by different kind of sticky tape. From the comparison, it is apparent that the one transferred with the ultraclean icros UV tape is the cleanest.