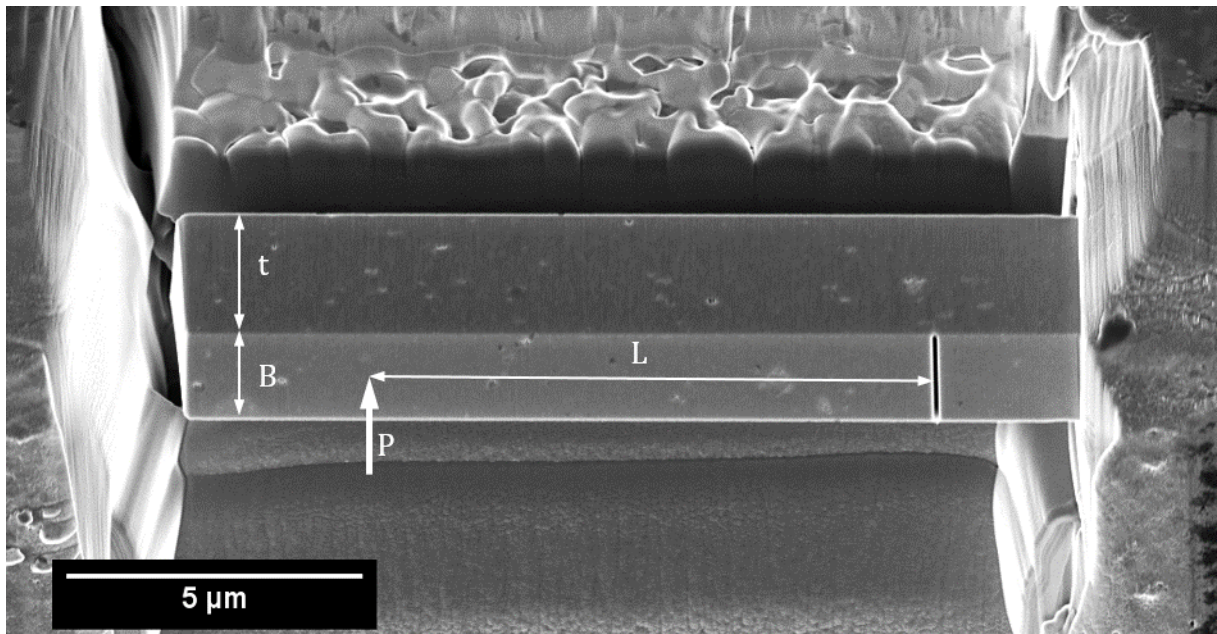


**Figure 1:** (a) A diffraction Intensity from  $(\text{Al}_{0.8}\text{Cr}_{0.2})_{1-x}\text{Si}_x\text{N}$  coating shows reflections of the w-AlN and c-CrN phases as well as reflection of the TiN bonding layer. Further analysis of the AlN (100) reflection reveals gradients in FWHM (b) and stress (c).



**Figure 2:** A SEM image of a representative micro-cantilever prior to testing.  $L$ ,  $B$  and  $t$  indicate the cantilever dimensions and the vector  $P$  symbolizes the point of loading.