

Figure 1 QMS measurement as a function of the $SF_6/(SF_6+H_2)$ ratio for three different mass over charge (m/z) ratio: 20, 34 and 89 that represent HF, H_2S and SF_3 contributions respectively. Ion currents have been normalized to Ar ion current for each specific gas ratio. The red rectangle highlights the 0.24-0.3 gas ratio range where a maximum of HF, a sharp decrease of H_2S and an increase of SF_3 signal is observed, as well as the etching onset of TaN shown in Fig. 2.

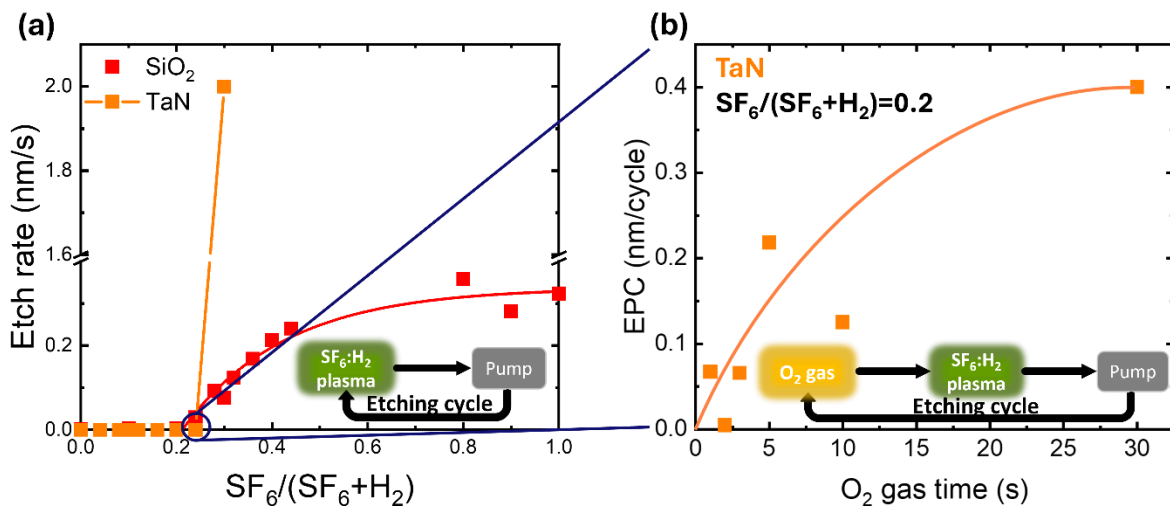


Figure 2 (a) Etch rate of SiO_2 and TaN as a function of $SF_6/(SF_6+H_2)$ (b) Etch rate of TaN at a $SF_6/(SF_6+H_2)$ ratio of 0.2 with different O_2 gas time exposure before the plasma.