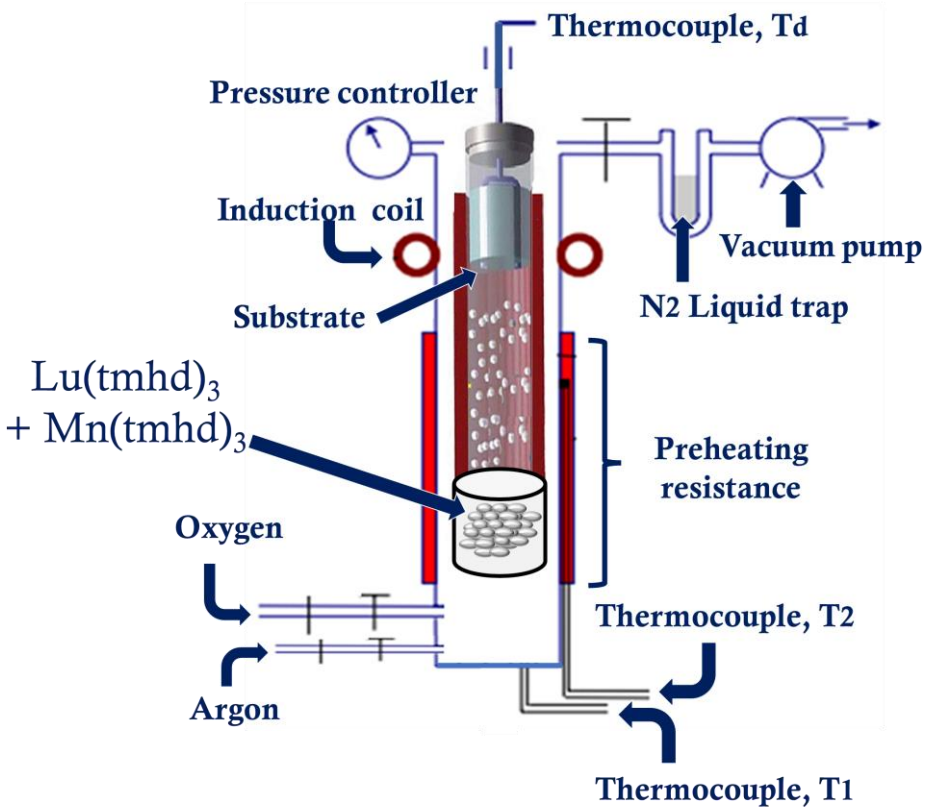


Figure S1: Diagram of the experimental apparatus used for direct metal organic chemical vapor deposition (MOCVD)

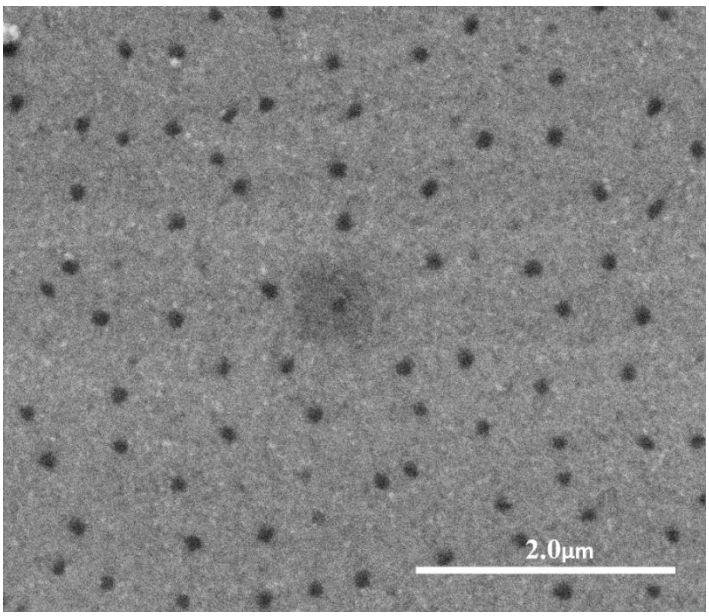


Figure S2: Example of SEM image of a plain substrate of Pt\Ti\SiO_2\Si(100) surface after thermal treatment at 800 °C in air. It is observed the formation of pores with an average size 160 ±10 nm, independently of any film deposition.