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# Investigation of the Oxygen Adsorption on Iron Covered W(110) Surface by LEED and STM

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**Abstract:** *Adsorption of oxygen on the epitaxial growth of iron thin film on tungsten (110) surface was intensively studied considering several Langmuir(L) exposure range. Typical surface characterization approaches were considered, such as low energy electron diffraction, and scanning tunneling microscopy (STM) to analyze the O/1psML Fe/W(110) surface. Certain oxygen adsorption structures on one pseudomorphic monolayer (psML) of Fe on W(110) surface is reported in this literature and compared with previous study. Previously reported the (3 × 2) structure of the oxygen on the iron pseudomorphic monolayer (psML)/W(110) surface was recognized at less than 4L of oxygen exposure. Finally, STM analysis determined the surface morphology of the iron oxide (FeO) layer on W(110) surface.*

**Keywords:** Adsorption; Oxygen; LEED; STM.