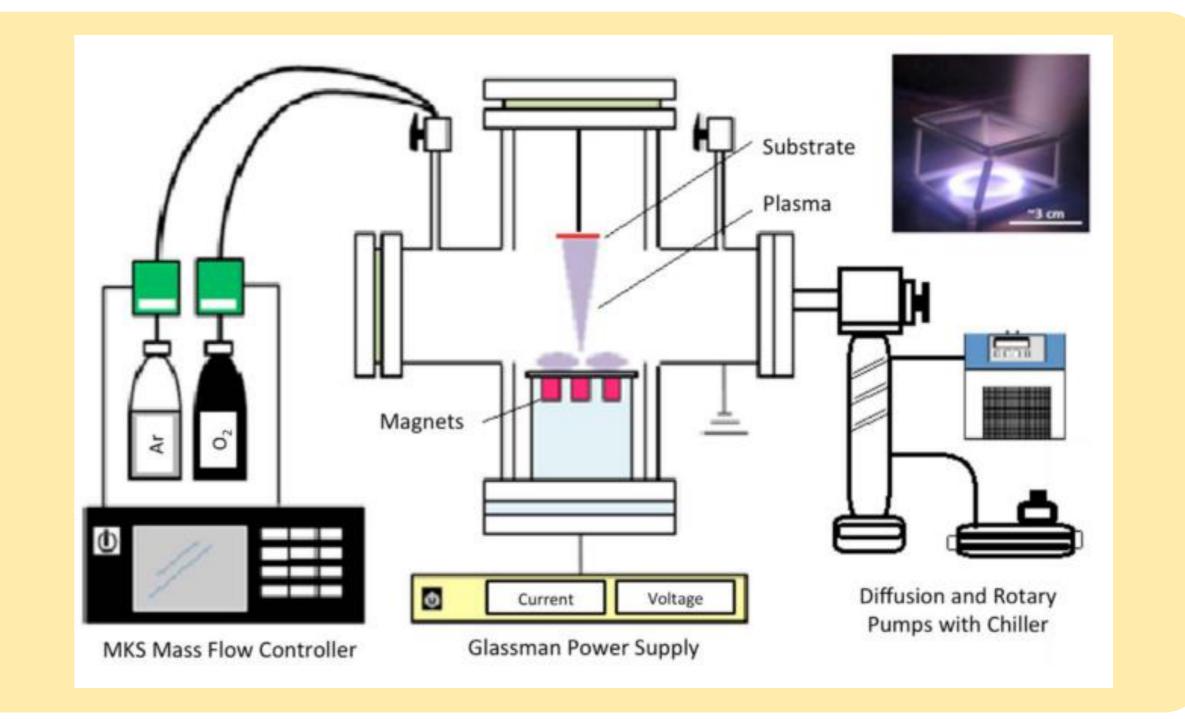


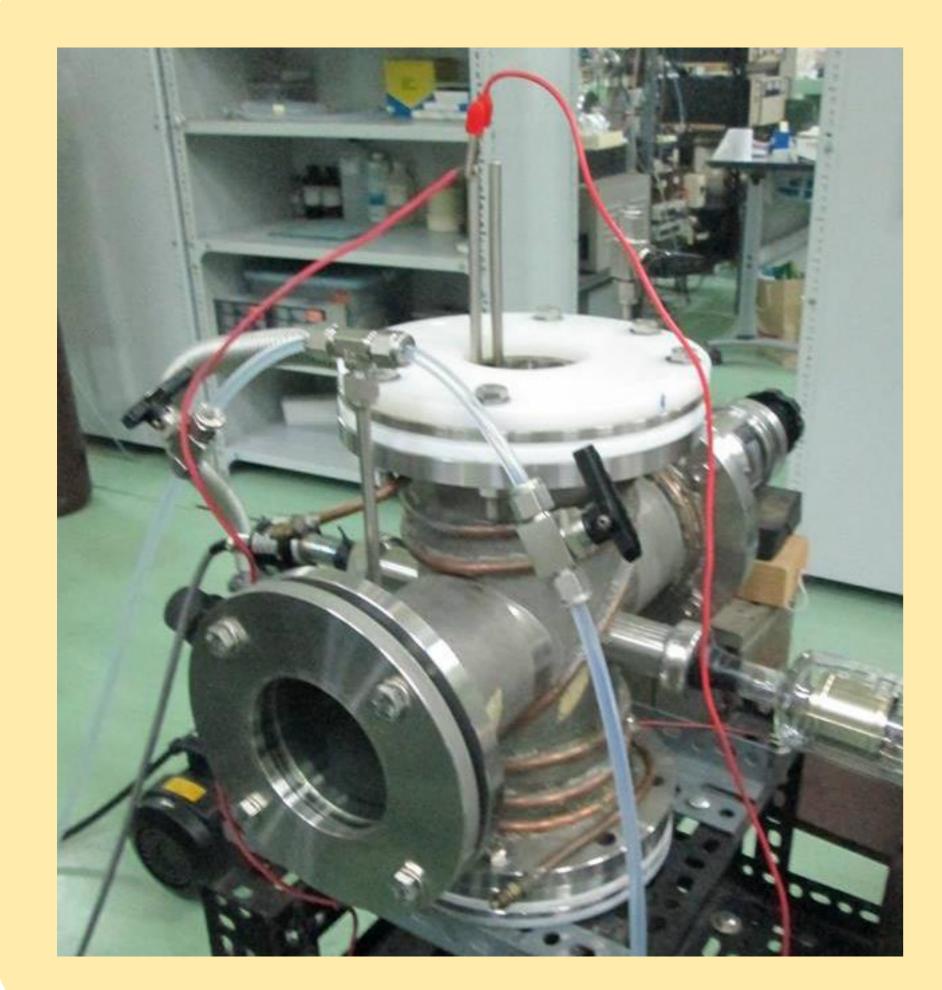
Magnetron sputtered and microwave-assisted thin film deposition

Michelle Marie S. Villamayor Central Mindanao University, Musuan, Maramag, Bukidnon

Magnetron Sputtering

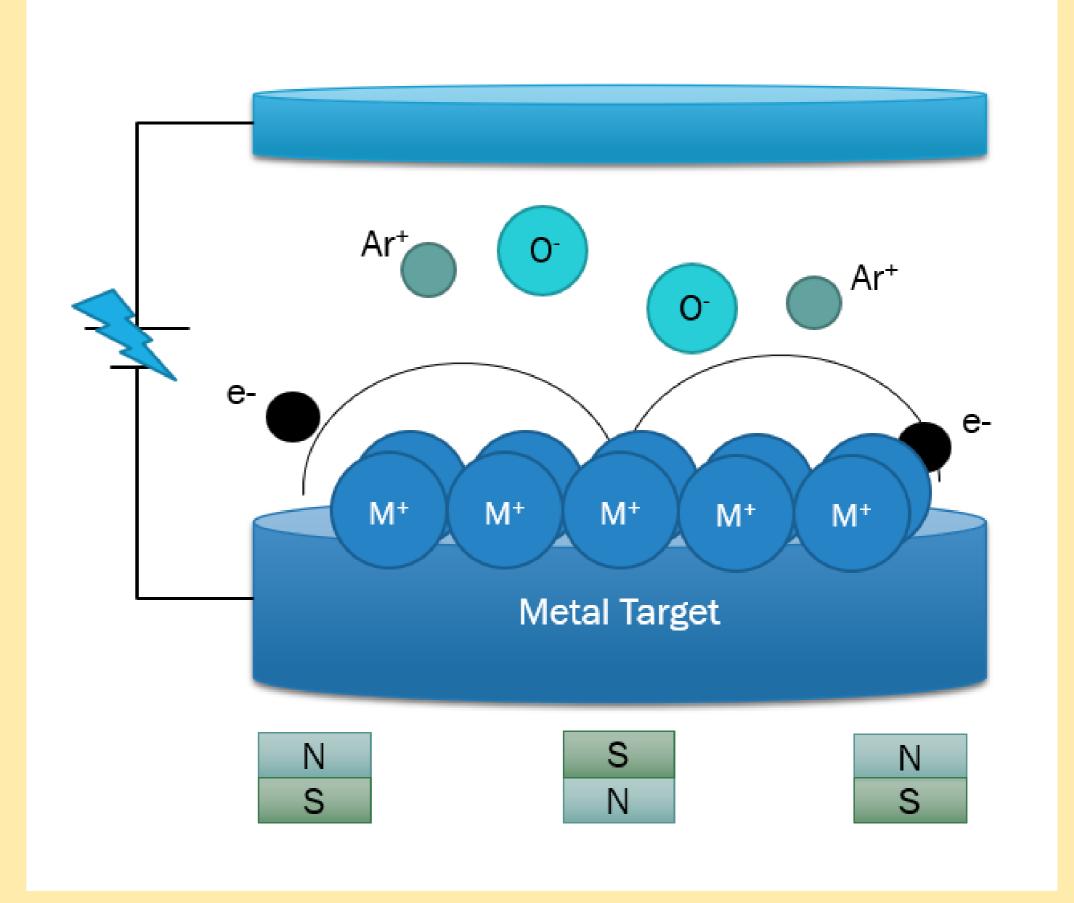
- A process where energetic ions (example Ar⁺) bombard the target material
- The sputtered material reacts with reactive gases (example O⁻) to form and thin film on the substrate
- The thin films can be used for various applications



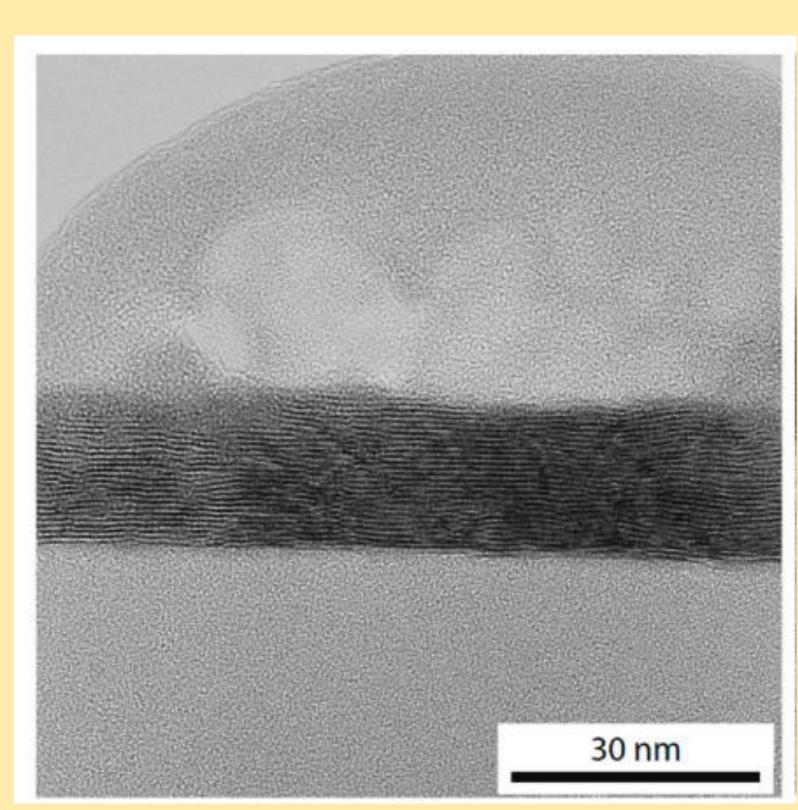




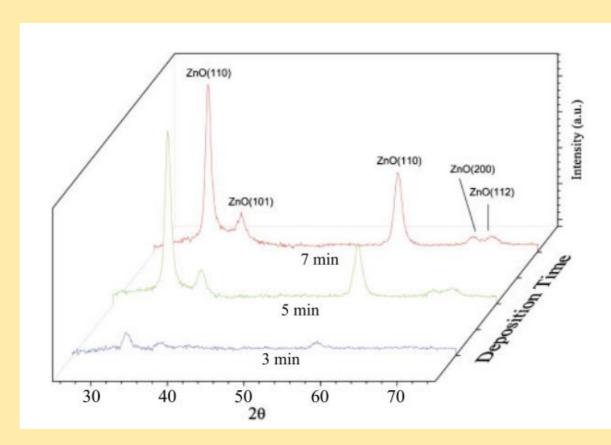




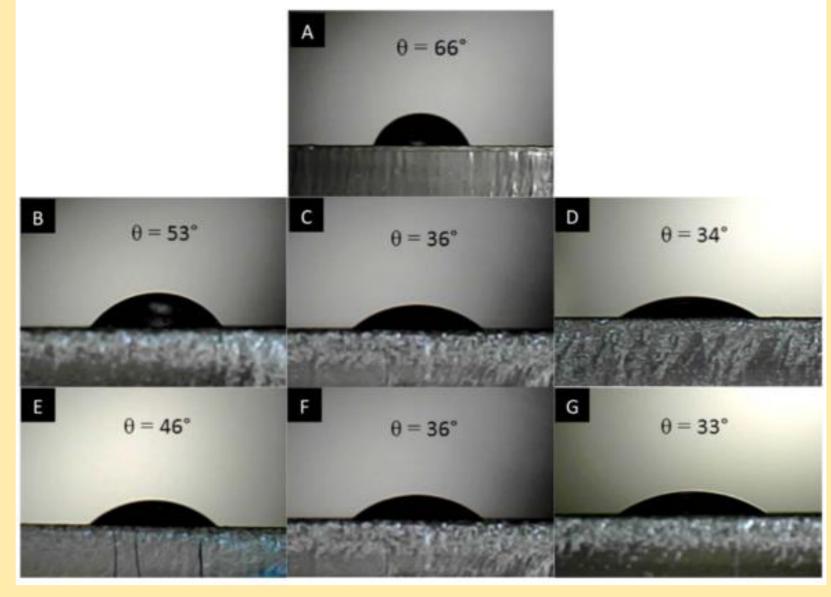
Applications



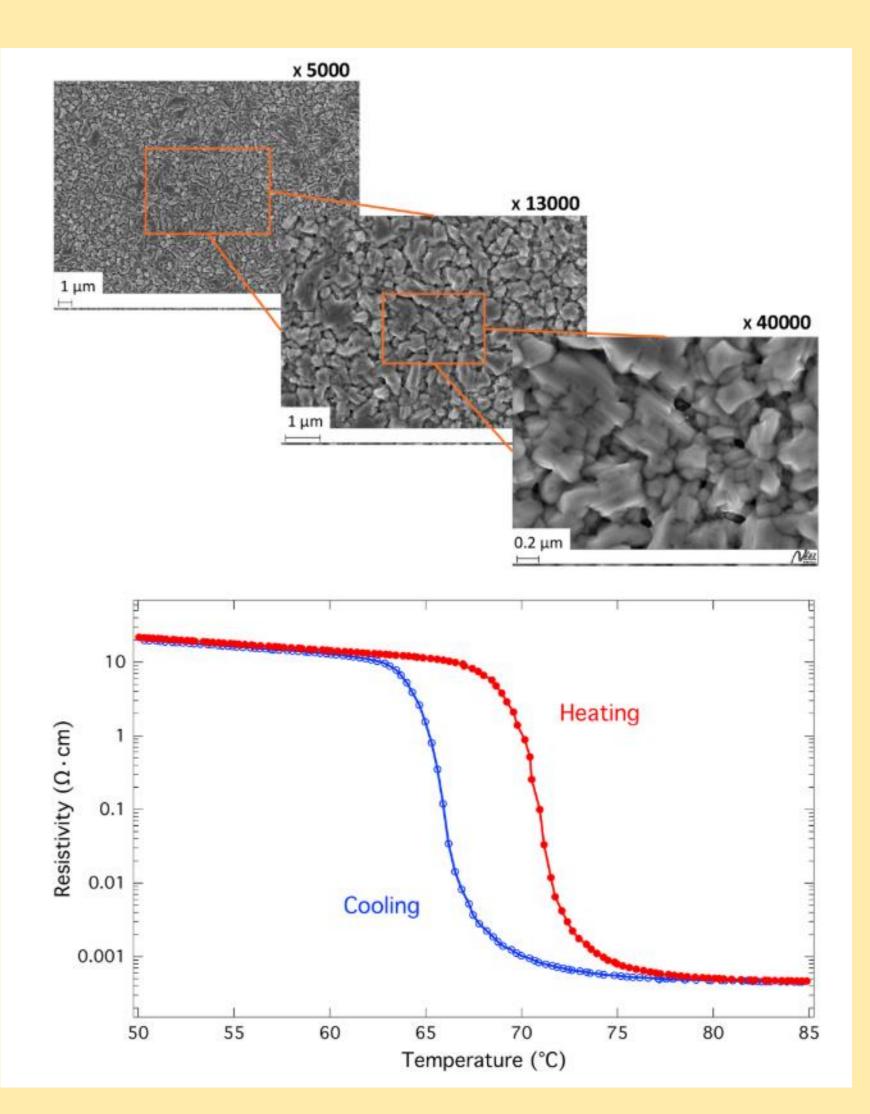
2D layered WS₂



Transparent conducting ZnO



Photocatalytic TiO₂



Metal-Insulator Transitioning VO₂