

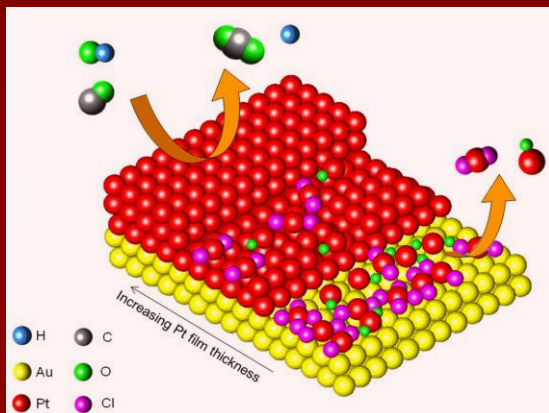
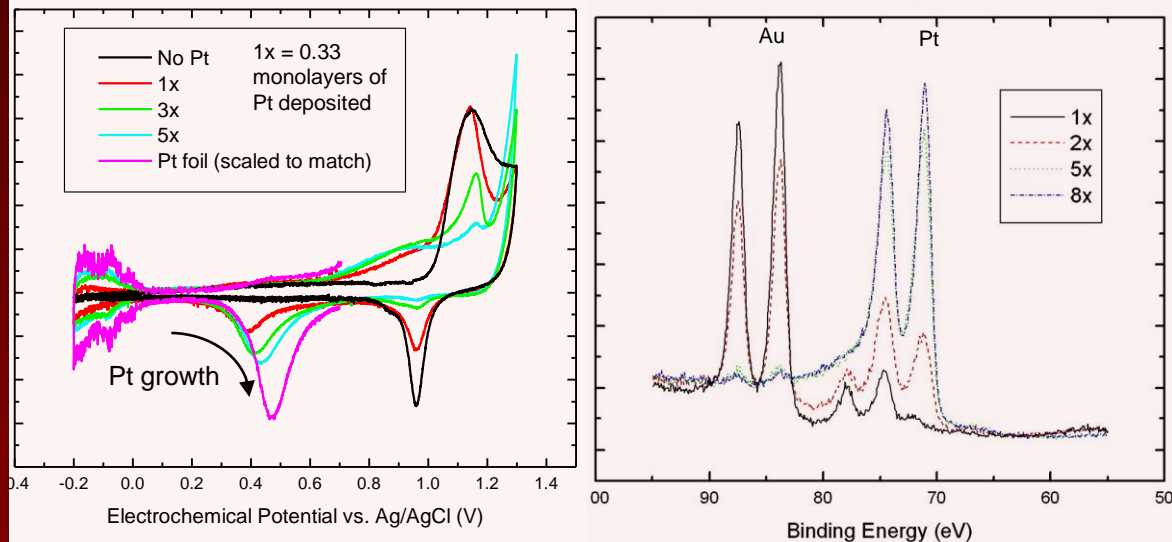
# Effect of Surface-to-Bulk Atomic Structure on Surface Electronic Structure in Multicomponent Catalysts

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**Layer by layer design of Catalyst surface:** Near-surface compositional architecture in catalyst systems fundamentally shapes their properties. We designed Pt monolayer catalysts with atomic layer precision.

At each stage we correlated the atomic and electronic structure to the catalytic properties.

## Atomic layer precision catalyst synthesis and characterization



**The nature of the catalyst structure, and consequently its catalytic properties change dramatically from sub-monolayer and 1 and 2 monolayers!**

