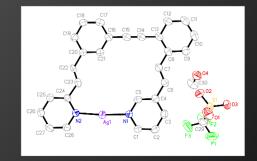
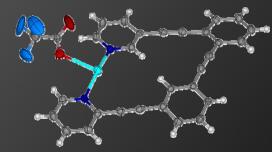
## Elaboration of Petroleum-Derived Aromatics for the Generation of Conjugated Discotic and Cruciform Structures: Controlling Electronic Properties via Transition Metal Coordination

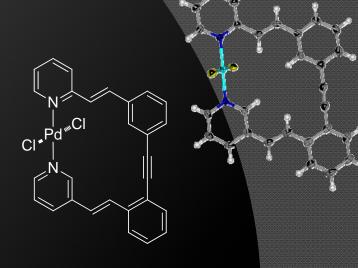
Nathan P. Bowling, Department of Chemistry, University of Wisconsin-Stevens Point

# Organic structures in which the effective conjugation can be increased upon complexation to transition metals (Pd(II) and Ag(I)) have been generated.



# As predicted, X-ray crystal structures of these complexes show enforced coplanarization of the unsaturated backbones in the presence of transition metals, due to bidentate coordination of pyridine nitrogen atoms.





# After demonstrating the ability to enforce planarization in unsaturated molecules via transition metal complexation, we now will apply this strategy to larger conjugated systems, with the hope of moving toward functional organic materials.

