SYNTHESIS OF NICKEL BASED SALICYLALDIMINATE SINGLE-SITE CATALYSTS. ***A. Monfette,*** *M. Miri*, Department of Chemistry, amm7191@rit.edu, mjmsch@rit.edu.*

The use of nickel based salicylaldiminate single-site catalysts is under investigation in order to produce polyethylene at high polymerization activities and in the presence of water as solvent. In order to synthesize these single-site catalysts a salicylaldiminate ligand must first be produced through a Schiff base reaction of a salicylaldhyde and 2,6-diisopropylaniline. These ligands where then combined with a nickel based complex to form single-site catalysts. Then the catalysts were evaluated for the polymerization of ethylene. Initially, we have performed ligand syntheses with some commercially available aldehydes. Some salicylaldiminate nickel compounds turned out to be very active as polymerization catalysts. We also are working on preparing ligand precursors by Suzuki coupling of salicylaldehydes with aryl boronic acid. Characterizations of the ligand precursors were performed using NMR, GC/MS or LC/MS.