

ABSTRACT: A series of racemic chiral Au₁₃ nanoclusters were synthesized via the direct reduction of achiral dinuclear Au(I) halide complexes ligated by *ortho*-xylyl linked bis- N-heterocyclic carbene (NHC)ligands. A broad range of functional groups are tolerated as wingtip substituents, allowing for the synthesis of a variety of functionalized chiral Au₁₃ nanoclusters. Single crystal X-ray crystallography confirmed the molecular formula to be [Au₁₃(bisNHC)₅Cl₂]₂Cl₃, with a chiral helical arrangement of the five bidentate NHC ligands around the icosahedral Au₁₃ core. The two enantiomers of the Au₁₃ clusters can be separated by chiral HPLC, and the isolated enantiomers characterized by circular dichroism spectroscopy. The clusters show remarkable stability, with the chiral structure displaying thermal stability considerably greater than [Au₁₃(dppe)₅Cl₂]₂Cl₃.