Enantioselective Azahelicenes via Intramolecular Hydroarylation of Alkynes

**Significance:** The authors report an enantioselective synthesis of azahelicenes and S-shaped double azahelicenes, promoted by gold/silver triflate co-catalyzed intramolecular hydroarylation of alkynes. The photophysical properties of both azahelicenes and S-shaped double azahelicenes were then evaluated by measuring the circularly polarized luminescence activity.

**Comment:** Azahelicenes and S-shaped double azahelicenes were successfully synthesized via catalytic enantioselective sequential hydroarylation of achiral diynes and tetraynes in high yields and moderate to high enantiomeric excesses. Interestingly, the chiroptical property of the S-shaped double azahelicenes is very promising, since the circularly polarized luminescence activity of double azahelicenes was surprisingly much higher than that of the simple azahelicenes.