Synthesis of MK-5172

**Significance:** MK-5172 is a hepatitis C virus protease inhibitor. Key steps in the synthesis depicted are (1) the regioselective S$_N$Ar reaction of dichloroquinoxaline A with prolinol derivative B and (2) construction of the 18-membered macrocycle using a macrolactamization (F $\rightarrow$ G).

**Comment:** The medicinal chemistry route to MK-5172 is based on a ring-closing metathesis strategy (S. Harper et al. *ACS Med. Chem. Lett.* 2012, 3, 332). The best regioselectivity (20:1) and minimization of double substitution in the S$_N$Ar reaction of A with B was achieved using 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) as the base in polar solvents such as DMSO, NMP, or DMAc.