

세미나 초록

성명	지형민 (Hyung Min Chi)
소속	포항공과대학교 화학과/첨단재료과학부
발표 주제	HFIP Empowered Facile Synthesis of C4-Arylated Tetrahydroquinolines
발표 내용	<p>Transition-metal-free, practical one-pot synthesis of C4-aryl-substituted tetrahydroquinolines from simple anilines and readily accessible propargylic chlorides has been developed. Activation of the C–Cl bond by 1,1,1,3,3,3-hexafluoroisopropanol turned out to be the key interaction, which allowed C–N bond formation under an acidic medium. Propargylated aniline is formed as an intermediate via propargylation, and subsequent cyclization and reduction gave 4-arylated tetrahydroquinolines. To demonstrate the synthetic utility, total syntheses of aflaquinolone F and I have been accomplished.</p> <div style="text-align: center;"> <p style="text-align: center;"> <i>one-pot reaction</i> 1) TfOH, HFIP 2) NaBH₄ </p> <p style="text-align: right;"> up to 85% yield 31 examples </p> </div> <p>References</p> <p>1. Lee, S. H.; Chi, H. M.* HFIP-Empowered One-Pot Synthesis of C4-Aryl-Substituted Tetrahydroquinolines with Propargylic Chlorides and Anilines. <i>Org. Lett.</i> 2023, <i>25</i>, 1083–1087.</p>