

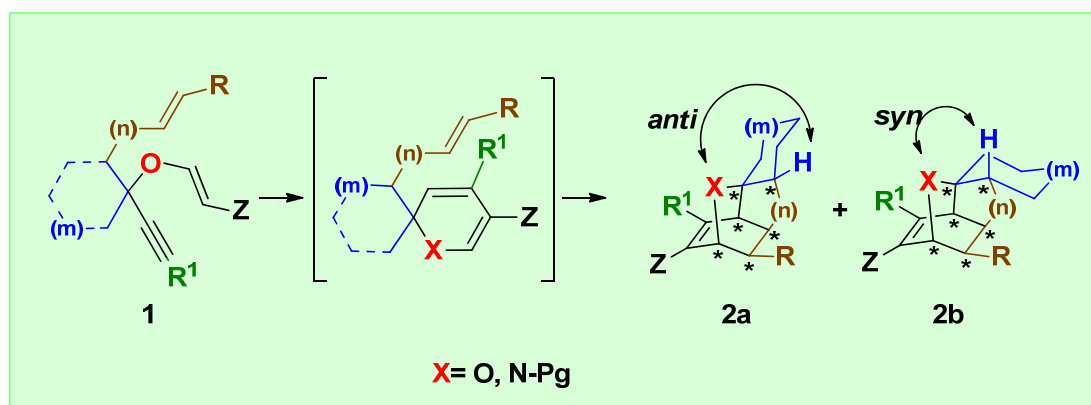
INTEGRATIVE PERICYCLIC CASCADE: AN ATOM ECONOMIC, MULTI C-C BOND-FORMING STRATEGY FOR THE CONSTRUCTION OF MOLECULAR COMPLEXITY

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An integrative pericyclic manifold is developed for the construction of topologically diverse, structurally complex and natural product-like polycyclic chemotypes. The manifold uses readily and highly accessible tertiary propargyl vinyl ethers (**1**) as substrates and an all-pericyclic domino process to form complex polycyclic compounds with up to 2 new rings, 3 new C-C bonds, 6 stereogenic centers and one transannular bridge (**2a/2b**). The domino process is efficient, diastereoselective, scalable and instrumentally simple to perform and includes a Propargyl Claisen rearrangement - [1,3] H-shift - 6π electrocyclization - intramolecular Diels-Alder reaction.^[1] The synthesis of oxacyclic and azacyclic structures will be discussed.



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[1] D. Tejedor, S. Delgado-Hernández, J. Peyrac, J. González-Platas, F. García-Tellado, *Chem. Eur. J.*, **2017**, *23*, 10048-10052.