Allylic moiety, an important structural motif in organic chemistry, can be easily transformed into many different functionalities. Therefore, it is essential to develop new allylation methodologies. An efficient and robust method for the formation of carbon-carbon bond has been developed with the use of scandium triflate as a precatalyst. Furthermore, we have shown an interesting catalytic synergy of d-block and f-block elements employed in the palladium-lanthanide co-catalyzed Tsuji-Trost allylation. Additionally, a “hidden Brønsted acid” mechanism was observed in several investigated reactions that were claimed to have been Lewis acid catalyzed.