On the basis of our group's interest in rare heterocyclic structures and the results of our previous research\(^1\), we present in this work the design of original scaffold using a strategy of \textit{in situ} activation\(^2\), and many types of reactions that have been developed so far.

Here we use the combination of \textit{in situ} activation mediated by PyBroP\(^3\) and cross-coupling reaction to afford a library of various mono- and bis-arylated compounds. To design platform A 2, 4-disubstituted, we developed a fully chemoselective synthesis that allowed us to obtain A in 8 steps with an overall yield of 20%. We first use the combination of \textit{in situ} activation mediated by PyBroP and cross-coupling reaction to afford a library of various monoarylated compounds B. These are engaged in a second arylation via the Liebeskind-Srogl cross coupling reaction leading to rare 2,4-disubstituted-pyrido[1',2':1,5]pyrazolo[4,3-\(d\)]pyrimidine derivatives C.

\[\text{Nu/Ar}_1 \text{ Ar}_2\]

\[\text{Nu/Ar}_1 \text{ Ar}_2\]

\[\text{Nu/Ar}_1 \text{ Ar}_2\]

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\(^3\) S. M. Li, J. Huang, G. J. Chen, F. S. Han, Chem. Commun. 2011, 47, 12840-12842.