KID: 20200421

## Research Diary

## My research group's association with Japan

Our research group has been long associated with Japan from the early days of IIT Hyderabad taking advantage of my Post-doctoral network. We have received excellent supports from the research group of Prof. Kazushi Mashima and Prof. Hayato Tsurugi of Osaka University and also from Japan International Cooperation Agency (JICA) on various fronts to establish our research group at IIT Hyderabad. This support was instrumental to provide international exposure to our research students. My very first doctoral student Mr. Ravi K. Kottalanka received three months research internship in Japan in 2012 during his PhD. Then Miss Jayeeta Bhattacharjee also visited Prof. Mashima's research Lab through the JASSO fellowship for three months. We also successfully received JICA-CKP collaborative project to work with Prof. Mashima group in 2018 for two years. Mr. Suman Das had visited Japan for six months through this project. Apart from these, a significant number of master students of IIT Hyderabad had chosen various Japanese universities as their PhD destinations through the JICA fellowship. I am also a regular visitor of Japan to strengthen these ties to a new height.

In our working group, we are involved to develop several efficient organometallic catalysts employing various metals with low cost, ready availability, comparatively low toxicity, and greater sustainability towards the environment. Alkali (Li, Na, K), alkaline earth metals (Ca, Sr, Ba), titanium the second most abundant in earth crust are our principal choices. In our group, these metals excelled as catalysts for a broad range of transformations, including cyclic Ring ester Opening **Polymerizations** hydroamination, (ROP), hydrophosphination, hydroboration, crossdehydro-coupling reaction, C-H activation, etc.

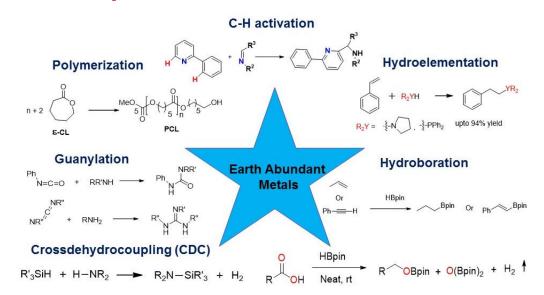


Figure 1: Current research work in our working group



Figure 2: Prof. Hayato Tsurugi visited our lab @ IIT Hyderabad 2019



Figure 3: With Prof. K. Mashima, Mrs. Mashima and Prof. A. Vidal @Osaka University during Japan Visit.



Figure 4: Several IITH master students working in Japan.

Continued...

## Research Diary



Figure 5: With IITH alumni working in Tokyo during Japan visit.

