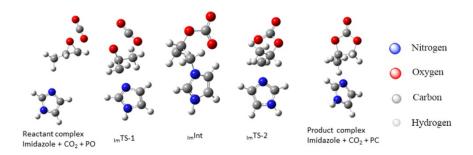
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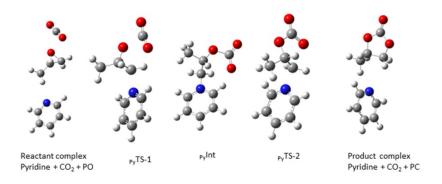
## **Supplementary information**

## A computational study into the mechanistic insights of base catalysed synthesis of cyclic carbonates from CO<sub>2</sub>: Bicarbonate anion as active species

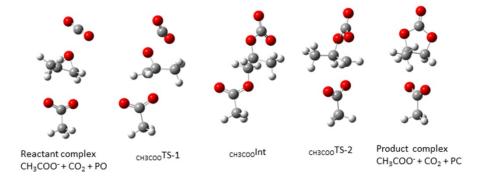
Kuruppathparambil Roshith Roshan, Revi Achuthan Plaissery, Amal Cherian Kathalikkattil, Robin Babu, George Mathai, Hwa- Soo Lee, Dae-Won Park\*



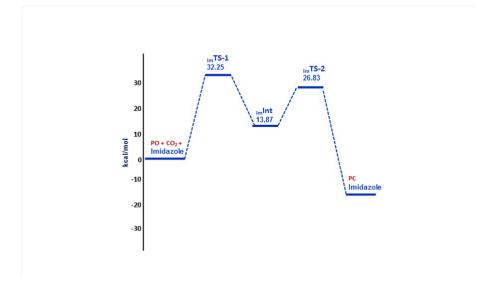
S1a. Optimized structural images of imidazole catalyzed PC synthesis from DFT simulations.



**S1b.** Optimized structural images of pyridine catalyzed PC synthesis from DFT simulations.



**S1c.** Optimized structural images of acetate ion catalyzed PC synthesis from DFT simulations.



**S2.** Relative energy profile from DFT for imidazole mediated PC synthesis