

## Electronic Supplementary Information

### Mechanistic and kinetic study for biodiesel production catalyzed by an efficient pyridinium based ionic liquid

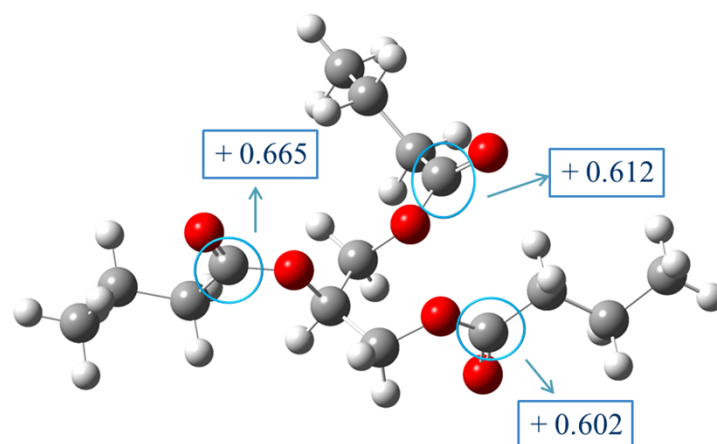


Fig.S1 Geometry of optimized TG molecule with Mulliken charge distribution on the carbonyl carbon

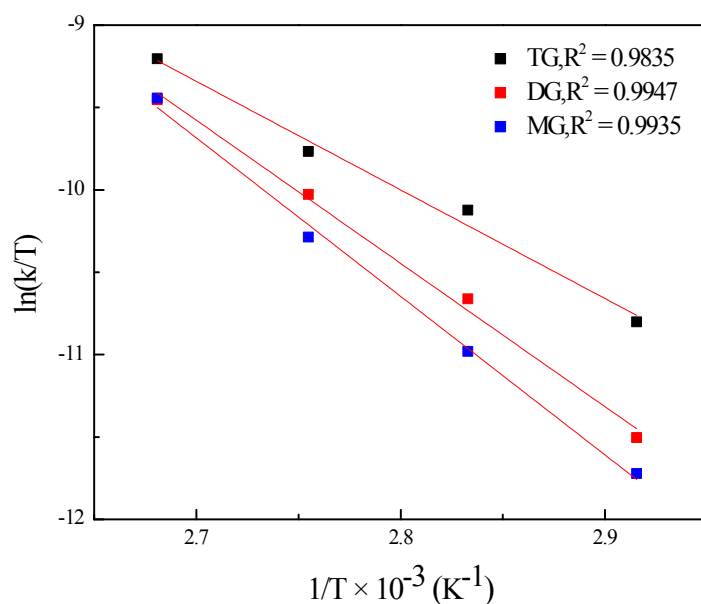


Fig. S2 Kinetics plot of  $\ln(k/T)$  vs.  $1/T$  for the pyridinium-IL catalyzed transesterification, the slope represents  $[-\Delta H/R]$  and the intercept represents  $[\ln(kB/h)+\Delta S/R]$  in the Eyring equation respectively.