

## CHAPTER V

### CONCLUSION AND RECOMMENDATION

Polybenzoxazine was successfully used as organic precursor to prepare carbon aerogel with a suitable pore size for electrodes in the electrochemical application. The carbon aerogel derived from bisphenol-A and teta showed higher specific capacitance than that derived from bisphenol-A and aniline due to the larger amount of mesopores.

When comparing the specific capacitance with carbon aerogels derived from resorcinol-formaldehyde, the specific capacitance is higher (70-150F/g). For enhancing the higher specific capacitance of the carbon aerogel electrodes derived from polybenzoxazine, we could increase surface area of the electrodes or add the pseudocapacitance effects (faradic reaction) to the electrode, such as functionalization of the carbon surface by a heat treatment in air environment, adding the transition metal oxides ( $\text{RuO}_2$ ,  $\text{TiO}_2$ ,  $\text{SnO}_2$ ,  $\text{MnO}_2$ ,  $\text{CrO}_2$ ), etc.