

## **Potential use of carbon dioxide by microalgae in Malaysia**

### **Abstract**

CO<sub>2</sub> emission, which is feared to bring more harm than benefit to the environment, can be prevented and reduced through the cultivation of microalgae. Microalga is the fastest growing organism (estimated 40 times faster than terrestrial grass) and requires a high CO<sub>2</sub> concentration to reproduce. Thus, this work evaluates the potential of microalgae to utilise CO<sub>2</sub>. The tolerable concentration of CO<sub>2</sub> for high microalgae productivity as a biomass producer is also explored. High productivity of microalgae is the key to successful biofuel productions, that is, not only producing green energy but also preventing the release of CO<sub>2</sub> into the atmosphere. Because of this concern, microalgae potential as a double-benefit for green energy production is analysed and discussed considering a CO<sub>2</sub> emissions scenario in Malaysia.