

## CHAPTER 4

### CONCLUSION

The commercial phosphate test strip was applied with a camera of an iPhone4S as a detector for determination of phosphate in seafood and frozen food instead of the conventional spectrophotometric standard method. This method can provide the calibration graph relationship between R intensity and phosphate concentration ( $\text{mgPO}_4^{3-}/\text{L}$ ) without the standard phosphate solution. The linear range of the calibration graph is 25 to 100  $\text{mgPO}_4^{3-} / \text{L}$  with calibration equation:  $y = 0.5552x + 8.8333$ ,  $R^2 = 0.9721$ . The advantages of this method are convenient, rapid. It can be on-site analysis and can be reported online with google map through the picaza program.

The determination of phosphate per one sample takes about 1 hour.

Determination of phosphate in sea food and frozen food samples available in the markets in Chiang Mai was demonstrated. The amounts of phosphate in sea food and frozen food samples did not contain more than 5000  $\text{mgPO}_4^{3-}/\text{kg}$ , apart from one sample.

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