CHAPTER 6

CONCLUSION

From the results presented in this thesis, it was concluded that the studies have been carried out to (1) investigate the effects of dissolved oxygen no proton NMR relaxation times (T_1 and T_2); (2) investigate the oxygen demand in red blood cells by using NMR techniques; spin-lattice and spin-spin relaxation times. The results indicated that dissolved oxygen only affected the T_1 relaxation times. Regression analysis, it assessed proton relaxation times (T_1 and T_2) should use to investigate oxygen consumption of red blood cells. Furthermore, from the comparison with the hematocrit values (HCT) from hematology analyzer, the regression equation of the relationship between the T_1 values and 30% by volume of dissolved oxygen could determine HCT values while the regression equation of the relationship between rate of T_2 relaxation and 30% red blood cells could also determine HCT values.