#C125335 :MAJOR PHYSICS
KEY WORD: NMR DETECTOR / ROBINSON DETECTOR
SURASAK CHIANGGA : CONSTRUCTION OF ROBINSON-TYPE NMR DETECTOR.
THESIS ADVISOR : ASSO..PROF..WIJIT SENGHAPHAN, Ph.D. 54 pp.
ISBN 974-582-924-2

In this research, the Robinson-Type NMR Detector was studied and constructed by using the reasonable electronic devices available in the country. This instrument was tested and developed to the highest efficiency for detecting NMR signal. It was found that at resonant frequency 10 MHz and the magnetic field of 0.23 Tesla and about 1 cm^3 oil sample. The rf coil was made by wrapping S.W.G. No.20 around test tube of 1.0 centimeter diameter 13 turns with some space between the turns, this instrument was well capable of demonstrating the principle of NMR. At the same strength of magnetic field, the signal to noise ratio (s/n) of 10 inches pole face was about 32 much better than s/n from the magnetic field of 4 inches pole face which is about 8