

Application of Electromagnetic Waves in Blood Disorders and Diseases Diagnosis

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Electromagnetic Waves have various application in different areas of science and technology. Beside its main application in telecommunication, several other fields of applications such as agriculture [1], food [2], and health[3] have been proposed.

The latter, the non-ionizing application of electromagnetic waves, is the main focus of our chapter. This applications are of two types, either medical treatment or biomedical diagnosis of health problems. The latter such as non-contact detection of the vital signs), imaging (noninvasive breast cancer detection), medical sensors (such as those for identifying cancel cell aggressiveness grade), and measurement techniques for the electromagnetic exposure of biological cell suspensions is becoming more and more important. In this chapter, we will introduce the application of electromagnetic waves in the detection of blood disorder and diseases by using the dielectric properties of blood.