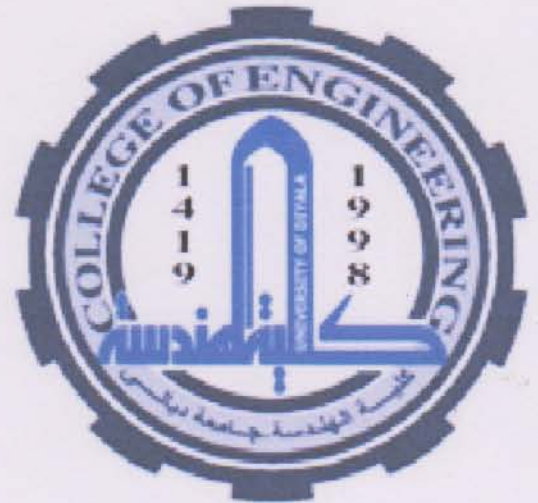


Ministry of Higher Education
And Scientific Research
University of Diyala
College of Engineering
Communication Engineering Department



RADAR CROSS SECTION (RCS)

A Project
Submitted to the Department of Communication
University of Diyala-College of Engineering in partial Fulfillment of the Requirement
for the Degree of Bachelor in Communication Engineering

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Abstract

This project present the Radar Cross Section(RCS) and use it to study the characteristic of material , and by using matlab explained the effect of aspect angle on RCS and the effect of a rectangular flat plate with polarization on RCS .

- [1] Emerson, W. H. IEEE Trans. Antennas Propag. **1973**,
- [2] Petrov, V. M., Gagulin, V.V. Inorganic Materials **2001**
- [3] Gaylor, K. "Radar Absorbing Materials - Mechanisms and Materials," DSTO Materials Research Laboratory, **1989**.
- [4] Ruck, G. T. Radar Cross Section Handbook; Plenum Press: Newe York, **1970**
- [5] Vinoy, K. J.; Jha, R. M. Radar Absorbing Materials: From theory to Design and Characterization; Kluwer Academic Publishers: Boston, **1996**.
- [6] Knott, E. F.; Shaeffer, J. F.; Tuley, M. T. Radar Cross Section, 2Rev. ed ed.; Artech House: Norwood, **1993**.
- [7] Henry, F.; Broussoux, D.; Dubois, J.-C., US Patent 5104580. **1992**.
- [8] Abramowitz, M. and Stegun, I. A., Editors, Handbook of Mathematical Functions, with Formulas, Graphs, and Mathematical Tables, Dover Publica-tions, 1970.
- [9] Balanis, C. A., Antenna Theory, Analysis and Design, Harper & Row, New York, 1982.
- [10] Barkat, M., Signal Detection and Estimation, Artech House, Norwood, MA, 1991.
- [11] Barton, D. K., Modern Radar System Analysis, Artech House, Norwood, MA, 1988.
- [12] Benedict, T. and Bordner, G., Synthesis of an Optimal Set of Radar Track-While-Scan Smoothing Equations, IRE Transaction on Automatic Control, July 1962