Radar Absorbing Materials (RAM) - A Review

K J Vinoy, R M Jha

ALD

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Dr S Nagabhushana, Head, ALD

Radar Absorbing Materials (RAM): Review; Analysis, Design and Fabrication, RCS reduction, Stealth techniques.

The research in the area of Radar Absorbing Materials (RAM's) has been actively pursued for at least four decades. Although resonant RAM's were originally designed by transmission line approach, and the broadband RAM's were obtained by multilayering, the quest for ultrawideband performance has led to novel approaches such as chirality and even exploring biochemical products. It is observed that radome materials are frequently used as RAM's. The understanding of the underlying principles of electromagnetic analysis and design, fabrication and the trends in RAM's reviewed in this paper could lead to indigenisation, and even pioneering next generation of RAM technology.