
ELECTROMAGNETIC WAVES
PIERB 79

Progress

In

Electromagnetics

Research B

© 2017 EMW Publishing. All rights reserved.

No part of this publication may be reproduced. Request for permission should be addressed to the Publisher.

All inquiries regarding copyrighted material from this publication, manuscript submission instructions, and subscription orders and price information should be directed to: EMW Publishing, P. O. Box 425517, Kendall Square, Cambridge, Massachusetts 02142, USA.

ELECTROMAGNETIC WAVES
PIERB 79

Progress
In
Electromagnetics
Research B

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

Comparative Study of the Rytov and Born Approximations in Quantitative Microwave Holography	
Daniel Tajik, Aaron D. Pitcher, and Natalia K. Nikolova	1
Design and Development of Coax-Fed Electromagnetically Coupled Stacked Rectangular Patch Antenna for Broad Band Application	
Manotosh Biswas and Mausumi Sen	21
High Resolution Radar Focusing Using Spectral Estimation Methods in Wide-Band and Near-Field Configurations: Application to Millimeter-Wave Near-Range Imaging	
Antoine Jouadé, Laurent Ferro-Famil, Stephane Méric, Olivier Lafond, and Laurent Le Coq	45
Harmonically Time Varying, Traveling Electromagnetic Fields along a Laminate Approximated by a Homogeneous, Anisotropic Block with Infinite Length	
Birger Marcusson and Urban Lundin	65
An Experimental 13.56 MHz Radio Frequency Heating System for Efficient Thermal Pretreatment of Wastewater Sludge	
Md. S. Ferdous, Ehssan H. Koupaie, Cigdem Eskicioglu, and Thomas Johnson	83
Optimization of LPDA Excitations and the PBM Antenna Benchmarks Using SHADE and L-SHADE Algorithms	
Richard A. Formato and Mahamed G. H. Omran	103
Approximative Computation Methods for Monostatic Scattering from Axially Symmetric Objects	
Andreas Ericsson, Daniel Sjöberg, Christer Larsson, and Torleif Martin	127
Fraunhofer Diffraction by a Strip: Perturbation Method	
Anne Marie Gavaix and Jean Chandezon	149
Fuzzy Logic Biased Optimal Dipole-Linear Antenna Array: An Improved Array with Better Tradeoff between Performance Parameters	
Saumendra Kumar Mohantya, Prativa Swainb, and Biswa Binayak Mangaraj	167