

## Metallic metamaterials and plasmonics

PAPERS OF A THEO MURPHY MEETING ISSUE ORGANIZED AND  
EDITED BY WILLIAM L. BARNES

### CONTENTS

#### Preface

W. L. BARNES

Metallic metamaterials and plasmonics 3431

#### Articles

J. YAO, Y. WANG, K.-T. TSAI, Z. LIU, X. YIN, G. BARTAL,

A. M. STACY, Y.-L. WANG AND X. ZHANG

Design, fabrication and characterization of indefinite metamaterials  
of nanowires 3434

I. M. PRYCE, K. AYDIN, Y. A. KELAITA, R. M. BRIGGS AND

H. A. ATWATER

Characterization of the tunable response of highly strained  
compliant optical metamaterials 3447

J. C. PRANGSMA, D. VAN OOSTEN AND L. KUIPERS

Local investigation of the optical properties of subwavelength  
rectangular holes with a focused beam of electrons 3456

A. M. FUNSTON, T. J. DAVIS, C. NOVO AND P. MULVANEY

Coupling modes of gold trimer superstructures 3472

A. CSAKI, T. SCHNEIDER, J. WIRTH, N. JAHR, A. STEINBRÜCK,

O. STRANIK, F. GARWE, R. MÜLLER AND W. FRITZSCHE

Molecular plasmonics: light meets molecules at the nanoscale 3483

S. PALOMBA, H. HARUTYUNYAN, J. RENGER, R. QUIDANT,

N. F. VAN HULST AND L. NOVOTNY

Nonlinear plasmonics at planar metal surfaces 3497

M. I. STOCKMAN

Loss compensation by gain and spasing 3510

S. WUESTNER, A. PUSCH, K. L. TSAKMAKIDIS, J. M. HAMM AND O. HESS

Gain and plasmon dynamics in active negative-index metamaterials 3525