

Contents

Part I FEM

- Observations of Individual Cu-Phthalocyanine Molecules Deposited on Nano-Tips in the Field Emission Microscope** 3
Moh'd Rezeq, Christian Joachim, Ma Han Lwin
and Francisco Ample Navarro

- High Voltage STM Imaging of Single Copper Phthalocyanine.** 15
C. Manzano, W.-H. Soe and C. Joachim

Part II STEM

- Motional Analysis of a Single Organic Molecule by TEM Using Nanocarbon Materials: Scope of Atomic Level Imaging and Spectroscopy** 29
Masanori Koshino and Kazutomo Suenaga

Part III Photo-Emission (PE)

- Imaging Orbitals by Ionization or Electron Attachment: The Role of Dyson Orbitals** 41
B. Mignolet, T. Kùs and F. Remacle

Part IV LT-UHV-STM

- Mapping the Electronic Resonances of Single Molecule STM Tunnel Junctions** 57
We-Hyo Soe, Carlos Manzano and Christian Joachim

Manipulation and Spectroscopy of Individual Phthalocyanine Molecules on InAs(111)A with a Low-Temperature Scanning Tunneling Microscope.	69
Christophe Nacci, Kiyoshi Kanisawa and Stefan Fölsch	
Electronic Structure and Properties of Graphen Nanoribbons: Zigzag and Armchair Edges	81
Matthias Koch, Francisco Ample, Christian Joachim and Leonhard Grill	
Imaging and Manipulation of Molecular Electronic States on Metal Surfaces with Scanning Tunneling Microscopy.	91
Robin Ohmann, Lucia Vitali and Klaus Kern	
SPM Imaging of Trinaphthylene Molecular States on a Hydrogen Passivated Ge(001) Surface	105
Marek Kolmer, Szymon Godlewski, Bartosz Such, Paula de Mendoza, Claudia De Leon, Antonio M. Echavarren, Hiroyo Kawai, Mark Saeys, Christian Joachim and Marek Szymonski	
Part V STM Theory and Image Interpretation	
Simulations of Constant Current STM Images of Open-Shell Systems.	117
M. Kепенekian, R. Robles, R. Korytár and N. Lorente	
Electronic Transmission Through a Single Impurity in a Multi-configuration Scattering Matrix Approach.	137
M. Portais and C. Joachim	
Electron Transport Through a Molecular Junction Using a Multi-configurational Description	159
Martin Vérot, Serguei A. Borshch and Vincent Robert	
Visualizing Electron Correlation in Molecules Using a Scanning Tunneling Microscope: Theory and Ab Initio Prediction.	181
Massimo Rontani, Dimitrios Toroz and Stefano Corni	
Part VI NC-AFM	
Submolecular Resolution Imaging of C₆₀: From Orbital Density to Bond Order	195
Philip Moriarty	