List of Publications of Prof. Amlan J. Pal during 2000 to date:

144) Transport gap of nanoparticle-passivated silicon substrates
    B. Ghosh, B. C. Das, and A. J. Pal
    Small 6, 52 (2010).

143) Near-IR activity of hybrid solar cells: Enhancement of efficiency by dissociating
    excitons generated in PbS nanoparticles
    A. Guchhait, A. K. Rath, and A. J. Pal

142) Hybrid Core-Shell Nanoparticles: Photoinduced Electron-Transfer for Charge
    Separation and Solar Cell Applications
    A. Guchhait, A. K. Rath, and A. J. Pal

141) Diode Junctions in Single ZnO Nanowires as Half-Wave Rectifiers
    K. Mohanta and A. J. Pal

140) Conductance-switching in TiO$_2$ nanorods is a redox-driven process: Evidences from
    photovoltaic parameters
    B. Ghosh and A. J. Pal

139) To change transport gap of semiconducting nanoparticles without disturbing the
    optical one: Core-shell approach
    B. C. Das and A. J. Pal

138) Diode junctions between two ZnO nanoparticles: mechanism of rectification
    K. Mohanta, S. K. Batabyal, and A. J. Pal

137) To induce negative differential resistance in organic devices through a ferroelectric
    polymer
    A. K. Rath and A. J. Pal

136) Half-wave organic-rectifiers with donor/acceptor assemblies in the molecular scale
    K. Mohanta and A. J. Pal

135) Diode junctions between two ZnO nanoparticles: current rectification and the role of
    particle size (and bandgap)
    K. Mohanta and A. J. Pal
    Nanotechnology 20, 185203 (2009).

134) Organic photodetectors based on a phthalocyanine and fullerenes: dielectric
    properties
    S. Sahu and A. J. Pal

133) Organic memory and electrical bistability in a quinone-based charge-transfer complex
A. K. Rath and A. J. Pal
*Proc. of IEEE* 97, 1580 (2009).

132) Enhancement of electrical bistability through semiconducting nanoparticles for organic memory applications
B. C. Das and A. J. Pal

2008

131) Core-Shell Hybrid Nanoparticles with Functionalized Quantum Dots and Ionic Dyes: Growth, Monolayer Formation, and Electrical Bistability
B. C. Das and A. J. Pal

130) Organization of organic molecules with inorganic nanoparticles: hybrid nanodiodes
K. Mohanta, S. K. Batabyal, and A. J. Pal

129) Memory applications and electrical bistability of semiconducting nanoparticles: do the phenomena depend on bandgap?
B. C. Das and A. J. Pal

128) Nanowires of Metal-Organic complex by Photocrystallization: A System to Achieve Addressable Electrically-Bistable Devices and Memory Elements

127) Multi-functionality of Organic Devices: Light-emission, Photovoltage Generation, and Photodetection
S. Sahu and A. J. Pal

126) Core-Shell Nanoparticles: An Approach to Enhance Electrical Bistability
B. Ghosh, S. Sahu, and A. J. Pal

125) Rectifying Junctions from an Assembly of Two Dissimilar Nanoparticles
K. Mohanfa and A. J. Pal

124) Non-interacting Write and Read Processes in Organic Memory Devices
S. Sahu and A. J. Pal

123) Resistive Switching in Rose Bengal and other Xanthene Molecules is a Molecular Phenomenon
A. K. Rath and A. J. Pal

122) Switching between different conformers of a molecule: Multilevel memory elements
B. C. Das and A. J. Pal
121) Core-Shell Nanotubes to enhance Electrical Bistability for 2-bit Memory
B. Ghosh, S. Sahu, and A. J. Pal

2007

120) *A bit per particle*: Electrostatic assembly of CdSe quantum dots as memory elements
B. C. Das, S. K. Batabyal, and A. J. Pal

119) Electronically interacting composite systems for electrical bistability and memory applications
B. Mukherjee, S. K. Batabyal, and A. J. Pal

118) *pn*-Junction Rectifiers based on *p*-ZnO and *n*-ZnO Nanoparticles
K. Mohanta, S. K. Batabyal, and A. J. Pal

117) Write-Once-Read-Many times (WORM) Memory Applications in a Monolayer of Donor/Acceptor Supramolecule
B. Mukherjee and A. J. Pal

116) Layer-by-layer assembly of capped CdSe-nanoparticles: electrical bistability and memory phenomenon
S. Sahu, S. K. Majee and A. J. Pal

115) Organic photodetectors with electrically bistable electron-acceptors and nanotubes
S. Sahu, S. K. Batabyal and A. J. Pal

114) Conductance Switching in an Organic Material: From Bulk to Monolayer
A. K. Rath and A. J. Pal

113) (Organic) Switching phenomenon in lateral structures: tuning by gate voltage
B. Mukherjee and A. J. Pal

112) Electrical Bistability in Zinc Oxide Nanoparticle-Polymer Composites

111) Vertically aligned ZnO-nanowire arrays in Rose Bengal-based dye-sensitized solar cells
B. Pradhan, S. K. Batabyal, and A. J. Pal

110) Organic photodetectors based on graded heterostructure of donor and acceptor layers
S. Sahu and A. J. Pal

109) Organic photodetectors: Role of multiple donor-acceptor interfaces,
2006

108) Tuning of Molecular Rectification in Donor/Acceptor Assemblies via Supramolecular Structures
B. Mukherjee, K. Mohanta, and A. J. Pal

107) Rectifying junction in a single ZnO vertical nanowire
B. Pradhan, S. K. Batabyal, and A. J. Pal

106) Electrical bistability in a xanthene class molecule: conduction mechanisms
A. K. Rath, S. Sahu, and A. J. Pal

105) Functionalized carbon nanotubes in donor/acceptor-type photovoltaic devices
B. Pradhan, S. K. Batabyal, and A. J. Pal

104) Electrical bistability in electrostatic assemblies of CdSe nanoparticles

103) Electrical bistability and memory phenomenon in carbon nanotube-conjugated polymer matrices
B. Pradhan, S. K. Batabyal, and A. J. Pal

102) Tuning of electrical bistability in organic devices through electrochemical potential of metal contacts
B. Mukherjee and A. J. Pal

101) A Control Over Accessibility of Immobilized Enzymes Through Porous Coating Layer

100) Donor/Acceptor type Photodetectors: Role of Substitution in Acceptor Material
S. Sahu and A. J. Pal

99) Electrical bistability and memory applications of poly(p-phenylene)vinylene films
S. K. Majee, H. S. Majumdar, A. Bolognesi, and A. J. Pal

98) Mechanism of conductance switching: An optical investigation
A. Bandyopadhyay, A. Chowdhury and A. J. Pal

97) Tuning of Conductance Switching by Supramolecular Structures
S.K. Majee, A. Bandyopadhyay and A. J Pal
2005

96) Memory-switching phenomenon in acceptor-rich organic molecules: Impedance spectroscopic studies
   A. Bandyopadhyay and A. J. Pal

95) Rectification in molecular assemblies of donor-acceptor monolayers
   B. Mukherjee and A. J. Pal

94) Role of dielectric properties in organic photovoltaic devices
   B. Pradhan and A.J. Pal

93) Dielectric properties of (multilevel) switching devices based on ultrathin organic films
   B. Mukherjee and A. J. Pal

92) On the origin of multilevel conductance and memory in ultrathin organic films
   B. Mukherjee and A. J. Pal
   Synthetic Metals 155, 336 (2005)

91) Organic photovoltaic devices: Concentration gradient of donor and acceptor materials in the molecular scale
   B. Pradhan and A.J. Pal
   Synthetic Metals 155, 555 (2005)

90) Memory applications of a thiophene-based conjugated polymer by photoluminescence measurements
   H. S. Majumdar, C. Botta, A. Bolognesi and A. J. Pal
   Synthetic Metals 148, 175 (2005)

2004

89) Multilevel conductance and memory in ultrathin organic films
   B. Mukherjee and A. J. Pal

88) Molecular level control of donor-acceptor heterostructures in organic photovoltaic devices
   B. Pradhan, A. Bandyopadhyay and A. J Pal

87) Photoluminescence measurements to study conductance switching and data-storage in polythiophene based devices
   C. Botta, C. Mercogliano, A. Bolognesi, H. S. Majumdar and A. J. Pal

86) Multilevel conductivity and conductance switching in supramolecular structures of an organic molecule
   A. Bandyopadhyay and A. J. Pal
85) Electrical bistability in molecular films: transition from memory to threshold switching
S.K. Majee, A. Bandyopadhyay and A. J Pal

84) Organic heterojunction photovoltaic cells: role of functional groups in electron acceptor materials
B. Pradhan and A. J. Pal

83) Conductance switching and data-storage in oriented polymer based devices: Impedance characteristics
H.S. Majumdar, A. Bolognesi and A.J. Pal

82) Switching and memory devices based on a polythiophene derivative for data-storage applications
H.S. Majumdar, A. Bolognesi and A.J. Pal

2003

81) Tuning of organic reversible switching via self-assembled supramolecular structures
A. Bandyopadhyay and A. J. Pal

80) Large conductance switching and memory effects in organic molecules for data-storage applications
A. Bandyopadhyay and A. J. Pal

79) Large conductance switching and binary operation in organic devices: Role of functional groups
A. Bandhopadhyay and A. J. Pal

78 Data-storage devices based on layer-by-layer self-assembled films of a phthalocyanine derivative
H.S. Majumdar, A. Bandyopadhyay, and A.J. Pal

77) A Monte Carlo simulation study of organic light-emitting devices under alternating applied field

76) Memory applications of a thiophene-based conjugated polymer: capacitance measurements
H.S. Majumdar, A. Bolognesi and A.J. Pal

75) Key to design functional organic molecules for binary operation with large conductance switching
A. Bandyopadhyay and A. J. Pal
2002

74) Layer-by-layer self-assembling of a low-molecular weight organic material by different electrostatic adsorption processes
S. Das and A.J. Pal

73) Memory device applications of a conjugated polymer: Role of space charges
H.S. Majumdar, A. Bandyopadhyay, A. Bolognesi and A.J. Pal

72) Impedance characteristics of layer-by-layer electrostatic self-assembled films of evans blue

71) A study of organic light-emitting devices based on electrostatic self-assembled films of evans blue under ac voltage
S. Roy and A.J. Pal

70) Relaxation dynamics in light-emitting devices based on a poly(3-alkylthiophene) derivative: Transient capacitance and transient electroluminescence studies
H.S. Majumdar, A. Bolognesi and A.J. Pal

2001

69) Light-emitting devices based on sequentially adsorbed layer-by-layer self-assembled films of alizarin violet
S. Das, A. J. Pal

68) Sequentially adsorbed layer-by-layer self assembled films: light-emitting devices based on evans blue
S. Roy and A. J. Pal

S. Das, A. Chowdhury, A.J. Pal

66) Transient characteristics of light-emitting devices based on Langmuir-Blodgett films of a porphyrin derivative
A. Chowdhury and A. J. Pal

65) A comparison between CW and pulsed mode operations of light-emitting devices based on alizarin violet
S. Das, P. Pal, and A. J. Pal
64) Electric field redistribution in light-emitting devices: Transient electroluminescence and time-of-flight studies
A. Chowdhury, R. Österbacka, A.J. Pal, H. Stubb
Synth. Met. 121, 1681 (2001)

63) Electric field redistribution in light-emitting devices based on Langmuir-Blodgett films of a porphyrin derivative
A. Chowdhury, R. Österbacka, A. J. Pal, H. Stubb

62) Alternating current light-emitting devices based on Langmuir-Blodgett films of a porphyrin derivative: space charges in device operation
A. Chowdhury and A. J. Pal

2000

61) Transient electroluminescence under double voltage pulse: charge accumulation in light-emitting devices based on alizarin violet
S. Das and A.J. Pal

60) Fabrication of microporous thin films from polyelectrolyte multilayers
J.D. Mendelsohn, C.J. Barrett, V.V. Chan, A.J. Pal, A.M. Mayes, and M.F. Rubner

59) Transient response of organic light-emitting devices – a Monte Carlo simulation study
S. Das, G.B. Talapatra, A. Chowdhury, and A. J. Pal

58) Light-emitting devices based on evans blue under alternating-current and direct-current modes: different charge injection mechanisms
S. Roy, A. Chowdhury, S. Das and A. J. Pal

57) Transient electroluminescence under double rectangular voltage pulses in light-emitting devices based on Evans Blue
S. Roy and A.J. Pal

56) Charge injection mechanisms in solid state organic light-emitting devices based on alizarin violet
S. Das, A. Chowdhury, S. Roy and A. J. Pal

Last updated: February 4, 2010