Publication list of B.P. Doyle:

Submitted journal articles and conference proceedings:

1. **Synergistic effect of mesoporous metal oxides and PtO_2 nanoparticles in aerobic oxidation of ethanol and ionic liquid induced acetaldehyde selectivity**
   N. Bingwa, M.J. Ndolomingo, J-H. Noh, N. Antonels, E. Carleschi, B.P. Doyle, M. Haumann and R. Meijboom
   submitted to *Appl. Catal. B*
2. **Self-assembly driven morphological evolution of CuO nanostructures: Electronic, Optical and Magnetic characterization**
   G. Babu Geetha, E. Carleschi, B. Doyle and P.N. Santhosh
   submitted to *Mater. Sci. Eng. B*
3. **Photocharged Water Splitting Employing a Nickel(II) Tellurium Oxide (Photo)Anode in Alkaline Medium**
   Z. Iqbal, E. Carleschi, B.P. Doyle and R.J. Kriek
   submitted to *ACS Appl. Energy Mater.*

Refereed journal articles:

92. **Understanding adhesion of gold conductive films on sodium-alginate by photoelectron spectroscopy**
R. Capelli, P. Maccagnani, F. Dinelli, M. Murgia, M. Bertoldo, M. Montecchi, B.P. Doyle, E. Carleschi and L. Pasquali
Thin Solid Films, accepted
91. **Inorganic perovskite-induced synergy on highly selective Pd catalyzed hydrogenation of cinnamaldehyde**
S. Bewana, M.J. Ndolomingo, E. Carleschi, B.P. Doyle, R. Meijboom and N. Bingwa
ACS Appl. Mater. Interfaces, accepted
90. **Morphological and compositional changes of MFe_2O_4@Co_3O_4 (M = Ni, Zn) core-shell nanoparticles after mild reduction**
A. Govender, E.J. Olivier, E. Carleschi, E. Prestat, S.J. Haigh, H. van Rensburg, B.P. Doyle, W. Barnard, R.P. Forbes, J.H. Neethling and E. Van Steen
Mater. Charact., **155** (2019) 109806
89. **Photo-charging of Europium(III) Tellurium Oxide as a Photoelectrocatalyst**
R.J. Kriek, M.Z. Iqbal, B.P. Doyle and E. Carleschi
ACS Appl. Energy Mater., accepted
88. **Evolution of NiO Phase at the Expense of Metallic Nickel: Structure, Magnetic and Electronic Properties**
P. Mohanty, C.J. Sheppard, B.P. Doyle, E. Carleschi and A.R.E. Prinsloo
Physica B, **570** (2019) 285-290
87. **Effect of Annealing on the Surface Characteristics of α-Al_2O_3(0001) Probed by XPS**
G.B. Geetha, C. Dansou, E. Carleschi and B.P. Doyle
Surf. Sci. Spectra, **26** (2019) 014014
86. **High-temperature-grown buffer layer boosts electron mobility in epitaxial La-doped $BaSnO_3$/$SrZrO_3$ heterostructures**
A.P. Nono Tchiomo, W. Braun, B.P. Doyle, W. Sigle, P. van Aken, J. Mannhart and P. Ngabonziza
APL Mater., **7** (2019) 041119
85. **Important phase control of indium sulfide nanomaterials by choice of indium (III) xanthate precursor and thermolysis temperature**
S. C. Masikane, I. Vitorica-Yrezabal, P. O'Brien, P. D. McNaughter, D. J. Lewis, E. Carleschi, B.P. Doyle and N. Revaprasadu
Eur. J. Inorg. Chem., (2019) 1421-1432
84. **Hyperbranched polymer membrane for catalytic degradation of polychlorinated biphenyl-153 (PCB-153) in water**
D.E. Vlotman, J.C. Ngila, T. Ndlovu, B. Doyle, E. Carleschi and S.P. Malinga
React. Funct. Polym., **136** (2019) 44-57

83. **Surface modification of Co_3O_4 nanocubes with TEOS for an improved performance in the Fischer-Tropsch synthesis**
L. Macheli, A. Roy, E. Carleschi, B. Doyle and E. Van Steen
Catal. Today, in press, available online at https://www.sciencedirect.com/science/article/pii/S0920586118312252
82. **Mn substituted $Mn_xZn_{1-x}Co_2O_4$ oxides synthesized by co-precipitation; effect of doping on the structural, electronic and magnetic properties**
T.H. Dolla, D.G. Billing, C. Sheppard, A. Prinsloo, E. Carleschi, B.P. Doyle, K. Pruessner and P. Ndungu
RSC Adv., **8** (2018) 39837
81. **Surface characterization of clean $SrTiO_3$(100) substrates by x-ray photoelectron spectroscopy**
A.P. Nono Tchiomo, G. Babu-Geetha, E. Carleschi, P. Ngabonziza and B.P. Doyle
Surf. Sci. Spectra, **25** (2018) 024001
80. **Pressure-induced disruption of the local environment of Fe-Fe dimers in $FeGa_3$, accompanied by metallization**
G.R. Hearne, S. Bhattacharjee, B.P. Doyle, M.A.M. Ahmed, P. Musyimi, E. Carleschi and B. Joseph
Phys. Rev. B, **98** (2018) 020101(R)
79. **Effect of cationic disorder on the energy generation and energy storage applications of $Ni_xCo_{3-x}S_4$ thiospinel**
C. Gervas, M. Dilshad Khan, C. Zhang, C. Zhao, R.K. Gupta, E. Carleschi, B.P. Doyle and N. Revaprasadu
RSC Adv., **8** (2018) 24049-24058
78. **Excellent product selectivity towards 2-phenyl-acetaldehyde and styrene oxide using manganese oxide and cobalt oxide NPs for the selective oxidation of styrene**
N. Masunga, B.P. Doyle, E. Carleschi and R. Meijboom
Appl. Catal. A, **559** (2018) 175-186
77. **Effect of alkali and alkaline earth metal dopants on catalytic activity of mesoporous cobalt oxide evaluated using a model reaction**
N. Bingwa, S. Bewana, M.J. Ndolomingo, N. Mawila, B. Mogudi, P. Ncube, E. Carleschi, B.P. Doyle, M. Haumann and R. Meijboom
Appl. Catal. A, **555** (2018) 189-195
76. **Effect of Sm doping ZnO nanorods on structural optical and electrical properties of Schottky diodes prepared by chemical bath deposition**
M.A.M. Ahmed, B.S. Mwankemwa, E. Carleschi, B.P. Doyle, W.E. Meyer, and J.M. Nel
Mater. Sci. Semicond. Process., **79** (2018) 53-60
75. **Sol-gel synthesis of $Mn_xNi_{1-x}Co_2O_4$ spinel phase materials: Structural, electronic and magnetic properties**
T.H. Dolla, K. Pruessner, D.G. Billing, C. Sheppard, A. Prinsloo, E. Carleschi, B. Doyle and P. Ndungu
J. Alloys Compd., **742** (2018) 78-89

74. **Structural and magnetic properties of $(Co_{1-x}Ni_x)Cr_2O_4$ (x = 0.5, 0.25) nanoparticles**
    P. Mohanty, A.R.E. Prinsloo, B.P. Doyle, E. Carleschi and C.J. Sheppard,
    AIP Adv., **8** (2018) 056424
73. **Towards Practical Applications of EQCN Experiments to Study Pt Anchor Sites on Carbon Surfaces**
    A.C. Fortuin, C. Jackson, E. Carleschi, B.P. Doyle, A. Shnier, R.J. Kriek, S.C. Ray, D.G. Billing, D. Wamwangi, G.G. Scherer and P.B.J. Levecque
    Electrocatalysis, **9** (2018) 271-278
72. **Some perspectives on nitrogen-doped carbon nanotube synthesis from acetonitrile and N,N'-dimethylformamide mixtures**
    E.T. Mombeshora, A.L.L. Jarvis, P.G. Ndungu, B.P. Doyle, E. Carleschi and V.O. Nyamori
    Mater. Chem. Phys., **199** (2017) 435-453
71. **Quantitative resonant soft x-ray reflectivity of ultrathin anisotropic organic layers: Simulation and experiment of PTCDA on Au**
    R. Capelli, N. Mahne, K. Koshmak, A. Giglia, B.P. Doyle, S. Mukherjee, S. Nannarone and L. Pasquali
    J. Chem. Phys., **145** (2016) 024201
70. **Structure of a Model Dye/Titania Interface: Geometry of Benzoate on Rutile-TiO_2 (110)(1 × 1)**
    W. Busayaporn, D.A. Duncan, F. Allegretti, A. Wander, M. Bech, P.J. Møller , B.P. Doyle, N.M. Harrison, G. Thornton and R. Lindsay
    J. Phys. Chem. C, **120** (2016) 14690–14698
69. **Evidence for strong *f* - *d* hybridization in the intermetallic ferromagnet $CePdIn_2$**
    E. Carleschi, B.P. Doyle, J.L. Snyman, E. Magnano, S. Nappini, I. Pis, F. Bondino, P. Peratheepan and A.M. Strydom
    Phys. Rev. B, **92** (2015) 235137
68. **Double metamagnetic transition in $Sr_4Ru_3O_{10}$**
    E. Carleschi, B.P. Doyle, R. Fittipaldi, V. Granata, A.M. Strydom, M. Cuoco and A. Vecchione
    Phys. Rev. B, **90** (2014) 205120
67. **Renormalized band structure of Sr_2RuO_4: a quasiparticle tight-binding approach**
    V.B. Zabolotnyy, D.V. Evtushinsky, A.A. Kordyuk, T.K. Kim, E. Carleschi, B.P. Doyle, R. Fittipaldi, M. Cuoco, A. Vecchione and S.V. Borisenko
    J. Electron Spectrosc. Relat. Phenom., **191** (2013) 48-53
66. **Positive and negative magnetocaloric effects in CeSi**
    J.L. Snyman, E. Carleschi, B.P. Doyle and A.M. Strydom
    J. Appl. Phys., **113** (2013) 17A903
65. **Angle-resolved Photoemission Spectroscopy at Ultra-low Temperatures**
    S.V. Borisenko, V.B. Zabolotnyy, A.A. Kordyuk, D.V. Evtushinsky, T.K. Kim, E. Carleschi, B.P. Doyle, R. Fittipaldi, M. Cuoco, A. Vecchione and H. Berger
    J. Vis. Exp., **68** (2012) e50129

64. **Spectroscopic study of double-walled carbon nanotubes functionalization for preparation of carbon nanotube / epoxy composites**
V. Leon, R. Parret, R. Almairac, L. Alvarez, M-R. Babaa, B.P. Doyle, P. Ienny, P. Parent, A. Zahab and J-L. Bantignies
Carbon, **50** (2012) 4987-4994
63. **Photoemission and X-ray Absorption Study of the Interface between 3,4-ethylenedioxythiophene Related Derivatives and Gold**
L. Pasquali, F. Terzi, B. P. Doyle and R. Seeber
J. Phys. Chem. C, **116** (2012) 15010–15018
62. **Surface and bulk electronic structure of the unconventional superconductor Sr_2RuO_4: unusual splitting of the β band**
V.B. Zabolotnyy, E. Carleschi, T.K. Kim, A.A. Kordyuk, J. Trinckauf, J. Geck, D. Evtushinsky, B.P. Doyle, R. Fittipaldi, M. Cuoco, A. Vecchione, B. Büchner and S. V. Borisenko
New J. Phys., **14** (2012) 063039
61. **Etching or Stabilization of GaAs(001) Under Alkali and Halogen Adsorption**
O.E. Tereshchenko, D. Paget, K.V. Toropetsky, V.L. Alperovich, S.V. Eremeev, A.V. Bakulin, S.E. Kulkova, B.P. Doyle and S. Nannarone
J. Phys. Chem. C, **116** (2012) 8535–8540
60. **Supramolecular Environment-Dependent Electronic Properties of Metal-Organic Interfaces**
A. El-Sayed, D.J. Mowbray, J.M. García-Lastra, C. Rogero, E. Goiri, P. Borghetti, A. Turak, B.P. Doyle, M. Dell'Angela, L. Floreano, Y. Wakayama, A. Rubio, J.E. Ortega and D.G. de Oteyza
J. Phys. Chem. C, **116** (2012) 4780-4785
59. **New Insights on the Interaction Between Thiophene Derivatives and Au surfaces. The Case of 3,4-Ethylenedioxythiophene and the Relevant Polymer**
F. Terzi, L. Pasquali, M. Montecchi, S. Nannarone, A. Viinikanoja, T. Ääritalo, M. Salomäki, J. Lukkari, B.P. Doyle and R. Seeber
J. Phys. Chem. C, **115** (2011) 17836-17844
58. **Chemistry of Wet Treatment of GaAs(111)B and GaAs(111)A in Hydrazine-Sulfide Solutions**
V.L. Berkovits, V. P. Ulin, O.E. Tereshchenko, D. Paget, A.C.H. Rowe, P. Chiaradia, B.P. Doyle and S. Nannarone
J. Electrochem. Soc., **158** (2011) D127-D135
57. **GaAs(111) A and B surfaces in hydrazine sulfide solutions: Extreme polarity dependence of surface adsorption processes**
V.L. Berkovits, V.P. Ulin, O.E. Tereshchenko, D. Paget, A.C.H. Rowe, P. Chiaradia, B.P. Doyle and S. Nannarone
Phys. Rev. B, **80** (2009) 233303
56. **Growth of *N*,*N'*-Bis(1-ethylpropyl)perylene-3,4,9,10-tetracarboxdiimide Films on Ag (111)**
L.N. Serkovic Loli, H. Hamoudi, J.E. Gayone, M. Luz Martiarena, E.A. Sánchez, O.

Grizzi, L. Pasquali, S. Nannarone, B.P. Doyle, C. Dablemont and V.A. Esaulov
J. Phys. Chem. C, **113** (2009) 17866-17875

55. **Onset Kinetics of Thermal Degradation of Ultrathin Polyacrylamide Films**
S. Mukherjee, M.H. Mondal, M. Mukherjee, B.P. Doyle and S. Nannarone
Macromolecules, **42** (2009) 7889-7896
54. **Customized Electronic Coupling in Self-Assembled Donor-Acceptor Nanostructures**
D.G. de Oteyza, J.M. García-Lastra, M. Corso, B.P. Doyle, L. Floreano, A. Morgante, Y. Wakayama, A. Rubio and J.E. Ortega
Adv. Funct. Mater., **19** (2009) 3567-3573
53. **Chemistry and electronic properties of ferromagnetic metal-organic semiconductor interfaces: Fe on CuPc**
V.Yu. Aristov, O.V. Molodtsova, Yu.A. Ossipyan, B.P. Doyle, S. Nannarone and M. Knupfer
phys. status solidi(a), **206** (2009) 2763-2770
52. **Engineering of the Energy Level Alignment at Organic Semiconductor Interfaces by Intramolecular Degrees of Freedom: Transition Metal Phthalocyanines**
M. Grobosch, V. Yu. Aristov, O.V. Molodtsova, C. Schmidt, B.P. Doyle, S. Nannarone and M. Knupfer
J. Phys. Chem. C, **113** (2009) 13219-13222
51. **Adsorption of 3,4-ethylenedioxythiophene (EDOT) on noble metal surfaces: A photoemission and X-ray absorption study**
L. Pasquali, F. Terzi, M. Montecchi, B.P. Doyle, J. Lukkari, B. Zanfrognini, R. Seeber and S. Nannarone
J. Electron Spectrosc. Relat. Phenom., **172** (2009) 114-119
50. **Clean reconstructed InAs(111) A and B surfaces using chemical treatments and annealing**
O.E. Tereshchenko, D. Paget, A.C.H. Rowe, V.L. Berkovits, P. Chiaradia, B.P. Doyle and S. Nannarone
Surf. Sci. **603** (2009) 518-522
49. **Balancing Intermolecular and Molecule-Substrate Interactions in Supramolecular Assemblies**
D.G. de Oteyza, I. Silanes, M. Ruiz-Osés, E. Barrena, B.P. Doyle, A. Arnau, H. Dosch, Y. Wakayama and J.E. Ortega
Adv. Funct. Mater. **19** (2009) 259-264
48. **Ferromagnetic cobalt and iron top contacts on an organic semiconductor: Evidence for a reacted interface**
V.Yu. Aristov, O.V. Molodtsova, M. Knupfer, Yu.A. Ossipyan, B.P. Doyle and S. Nannarone
Org. Electron. **10** (2009) 8–11
47. **Crystallographic and Electronic Structure of Self-Assembled DIP Monolayers on Au(111) Substrates**
D.G. de Oteyza, E. Barrena, M. Ruiz-Osés, I. Silanes, B.P. Doyle, J.E. Ortega, A.

Arnau, H. Dosch and Y. Wakayama
J. Phys. Chem. C **112** (2008) 7168-7172

46. **Adsorption geometry variation of 1,4-benzenedimethanethiol self-assembled monolayers on Au(111) grown from the vapor phase**
L. Pasquali, F. Terzi, R. Seeber, B.P. Doyle and S. Nannarone
J. Chem. Phys. **128** (2008) 134711
45. **Molecular states of polyacenes grown on noble metal surfaces**
M. Pedio, B. Doyle, N. Mahne, A. Giglia, S. Nannarone, M. Montecchi and L. Pasquali
J. Phys.: Conf. Ser. **100** (2008) 052072
44. **Doped holes and Mn valence in manganites: a polarized soft x-ray absorption study of $LaMnO_3$ and quasi-2D manganite systems**
K.B. Garg, N.L. Saini, B.R. Sekhar, R.K. Singhal, B. Doyle, S. Nannarone, F. Bondino, E. Magnano, E. Carleschi and T. Chatterji
J. Phys. Condens. Matter **20** (2008) 055215
43. **Response to "Comment on 'Electronic structure of C_{60} on Au(887)' [J. Chem. Phys. 127, 067101 (2007)]"[1]**
F. Schiller, M. Ruiz-Osés, J.E. Ortega, P. Segovia, J. Martínez-Blanco, B.P. Doyle, V. Pérez-Dieste, J. Lobo, N. Néel, R. Berndt and J. Kröger
J. Chem. Phys. **128** (2008) 037101
42. **Temperature-independent ytterbium valence in YbGaGe**
B.P. Doyle, E. Carleschi, E. Magnano, M. Malvestuto, A.A. Dee, A.S. Wills, Y. Janssen and P.C. Canfield
Phys. Rev. B **75** (2007) 235109
41. **Growth of Pentacene on Ag(111) surface: A NEXAFS study**
M. Pedio, B. Doyle, N. Mahne, A. Giglia, F. Borgatti, S. Nannarone, S.K.M. Henze, R. Temirov, F.S. Tautz, L. Casalis, R. Hudej, M.F. Danisman and B. Nickel
Appl. Surf. Sci. **254** (2007) 103-107
40. **Formation of sharp metal-organic semiconductor interfaces: Ag and Sn on CuPc**
V.Yu. Aristov, O.V. Molodtsova, V.M. Zhilin, Yu.A. Ossipyan, D.V. Vyalikh, B.P. Doyle, S. Nannarone and M. Knupfer
Eur. Phys. J. B **57** (2007) 379-384
39. **Silver on copper phthalocyanine: Abrupt and inert interfaces**
O.V. Molodtsova, V.Yu. Aristov, V.M. Zhilin, Yu.A. Ossipyan, D.V. Vyalikh, B.P. Doyle, S. Nannarone and M. Knupfer
Appl. Surf. Sci. **254** (2007) 99-102
38. **Spectroscopic Study of Nitrogen Doping of Multi-walled Carbon Nanotubes**
S. Enouz, J.L. Bantignies, M.R. Babaa, L. Alvarez, P. Parent, F. Le Normand, O. Stéphan, P. Poncharal, A. Loiseau and B.P. Doyle

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[1] It is unusual for a Response to a Comment to be included as a publication. I have done so here because our Response includes new experimental data.

J. Nanosci. Nanotechnol. ***7*** (2007) 3524-3527

37. **NEXAFS Study of Multi-walled Carbon Nanotubes Functionalization with Sulfonated Poly(ether ether ketone) Chains**
    M.-R. Babaa, J.-L. Bantignies, L. Alvarez, P. Parent, F. Le Normand, M. Gulas, J. Mane Mane, P. Poncharal and B.P. Doyle
    J. Nanosci. Nanotechnol. ***7*** (2007) 3463-3467
36. **Interface chemistry and epitaxial growth modes of SrF_2 on Si(001)**
    L. Pasquali, S.M. Suturin, A.K. Kaveev, V.P. Ulin, N.S. Sokolov, B.P. Doyle and S. Nannarone
    Phys. Rev. B **75** (2007) 075403
35. **Electronic structure of C_{60} on Au(887)**
    F. Schiller, M. Ruiz-Osés, J.E. Ortega, P. Segovia, J. Martínez-Blanco, B.P. Doyle, V. Pérez-Dieste, J. Lobo, N. Néel, R. Berndt and J. Kröger
    J. Chem. Phys. **125** (2006) 144719
34. **Electronic structure of $Pr_{0.67}Ca_{0.33}MnO_3$ near the Fermi level studied by ultraviolet photoelectron and x-ray absorption spectroscopy**
    M.K. Dalai, P. Pal, B.R. Sekhar, N.L. Saini, R.K. Singhal, K.B. Garg, B. Doyle, S. Nannarone, C. Martin and F. Studer
    Phys. Rev. B **74** (2006) 165119
33. **Cobalt on calcium fluoride: initial stages of growth and magnetic properties**
    L. Pasquali, B.P. Doyle, F. Borgatti, A. Giglia, N. Mahne, M. Pedio, S. Nannarone, A.K. Kaveev, A.S. Balanev, B.B. Krichevtsov, S.M. Suturin and N.S. Sokolov
    Surf. Sci. **600** (2006) 4170-4175
32. **Structural and photoemission studies of SrF_2 adsorption on Si(001)**
    L. Pasquali, S.M. Suturin, A. Balanev, A.K. Kaveev, N.S. Sokolov, B.P. Doyle, F. Borgatti, A. Giglia, N. Mahne, M. Pedio and S. Nannarone
    J. Phys. IV (Paris) **132** (2006) 35-40
31. **Pressure-induced long range magnetic order in SmB_6**
    A. Barla, J. Derr, J.P. Sanchez, B. Salce, G. Lapertot, B.P. Doyle, R. Rüffer, R. Lengsdorf, M.M. Abd-Elmeguid and J. Floquet
    Phys. Rev. Lett. **94** (2005) 166401
30. **Mg K-edge XANES of sepiolite and palygorskite**
    M. Sánchez del Río, M. Suárez, E. García Romero, L. Alianelli, R. Felici, P. Martinetto, E. Dooryhée, C. Reyes-Valerio, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio and S. Nannarone
    Nucl. Instr. and Meth. B **238** (2005) 55-60
29. **Delocalization of the U-5*f* magnetic moments in $U(In_{0.6}Sn_{0.4})_3$ and UNiSn under high pressure**
    A. Barla, J-P. Sanchez, A. Aksungur, R. Lengsdorf, J. Plessel, M.M. Abd-Elmeguid, B.P. Doyle and R. Rüffer
    J. Phys. Condens. Matter **17** (2005) S859-S870
28. **Valence and magnetic instabilities in Sm compounds at high pressures**
    A. Barla, J-P. Sanchez, J. Derr, B. Salce, G. Lapertot, J. Flouquet, B.P. Doyle, O. Leupold, R. Rüffer, R. Lengsdorf and M.M. Abd-Elmeguid

J. Phys. Condens. Matter **17** (2005) S837-S848

27. **Pressure driven collapse of the magnetism in UNiSn**
    A. Barla, J.P. Sanchez, A. Aksungur, R. Lengsdorf, J. Plessel, M.M. Abd-Elmeguid, B.P. Doyle, R. Rüffer and T. Takabatake
    Phys. Rev. B **71** (2005) 020402(R)
26. **Crystal fields, exchange and conduction electron polarization in $SmAl_2$**
    A. Barla, J.P. Sanchez, F. Givord, J.X. Boucherle, B.P. Doyle and R. Rüffer
    Phys. Rev. B **71** (2005) 012407
25. **Pressure-Induced Magnetic Order in Golden SmS**
    A. Barla, J.P. Sanchez, Y. Haga, G. Lapertot, B.P. Doyle, O. Leupold, R. Rüffer, M.M. Abd-Elmeguid, R. Lengsdorf and J. Floquet
    Phys. Rev. Lett. **92** (2004) 066401
24. **Sm Magnetism in the Layered Compound $SmMn_2Ge_2$**
    A. Barla, J.P. Sanchez, B. Malaman, B.P. Doyle and R. Rüffer
    Phys. Rev. B **69** (2004) 220405(R)
23. **Effect of pressure on the magnetic properties of $U(In_{1-x}Sn_x)_3$: Moment suppression in $U(In_{0.6}Sn_{0.4})_3$**
    A. Barla, J.P. Sanchez, B. Ni, B.P. Doyle, P. Vulliet, O. Leupold, R. Rüffer, D. Kaczorowski, J. Plessel and M.M. Abd-Elmeguid
    Phys. Rev. B **66** (2002) 094425
22. **High-pressure/high-temperature NFS study of magnetism in $LuFe_2$ and $ScFe_2$**
    K. Rupprecht, T. Friedmann, H. Giefers, G. Wortmann, B. Doyle and J. Zukrowski
    High Press. Res. **22** (2002) 189-194
21. **Transition from the Antiferromagnetic to a Nonmagnetic State in $FeBO_3$ under High Pressure**
    I.A. Troyan, A.G. Gavrilyuk, V.A. Sarkisyan, I.S. Lyubutin, R. Rüffer, O. Leupold, A. Barla, B. Doyle and A.I. Chumakov
    JETP Letters **74** (2001) 24-27
20. **A refractive collimator for high resolution x-ray optics**
    A.I. Chumakov, R. Rüffer, O. Leupold, A. Barla, H. Thiess, T. Asthalter, B.P. Doyle and A.A. Snigirev
    Poverchnost **1** (2001) 33-37
19. **Complementary investigations using charged particles and muons in the study of hydrogen in diamond**
    J.P.F. Sellschop, S.H. Connell, E. Sideras-Haddad, B.P. Doyle, R.D. Maclear, I.Z. Machi, C.G. Fischer, D.B. Rebuli and R.W.N. Nilen
    Radiat. Eff. Defect Solid. **156** (2001) 195 - 201
18. **Hydrogen and oxygen chemistry and dynamics in diamond studied by nuclear microscopic techniques**
    E. Sideras-Haddad, S.H. Connell, J.P.F. Sellschop, I.Z. Machi, D. Rebuli, R.D. Maclear and B.P. Doyle
    Nucl. Instr. and Meth. B **181** (2001) 419-425
17. **Study of indium-defect interactions in diamond using two-dimensional conversion-electron emission channelling**

B.P. Doyle, E.J. Storbeck, U. Wahl, S.H. Connell and J.P.F. Sellschop
J. Phys. Condens. Matter **12** (2000) 67-78

16. **High-energy-resolution x-ray optics with refractive collimators**
A.I. Chumakov, R. Rüffer, O. Leupold, A. Barla, H. Thiess, T. Asthalter, B.P. Doyle, A. Snigirev and A.Q.R. Baron
Appl. Phys. Lett. **77** (2000) 31-33
15. **Quantum diffusion of tetrahedral interstitial muonium in diamond**
I.Z. Machi, S.H. Connell, J.P.F. Sellschop, K. Bharuth-Ram, B.P. Doyle, R.D. Maclear, J. Major and R. Scheuermann
Physica B **289-290** (2000) 468-472
14. **Diffusion Characteristics of Hydrogen in Diamond**
I.Z. Machi, J.E. Butler, S.H. Connell, B.P. Doyle, R.D. Maclear, J.P.F. Sellschop, E. Sideras-Haddad and D.B. Rebuli
Diamond and Relat. Mater. **8** (1999) 1611-1614
13. **The distribution of hydrogen in polycrystalline CVD diamond**
R.D. Maclear, J.E. Butler, S.H. Connell, B.P. Doyle, I.Z. Machi, D.B. Rebuli, J.P.F. Sellschop and E. Sideras-Haddad
Diamond and Relat. Mater. **8** (1999) 1615-1619
12. **Oxygen on diamond surfaces**
D.B. Rebuli, T.E. Derry, E. Sideras-Haddad, B.P. Doyle, R.D. Maclear, S.H. Connell and J.P.F. Sellschop
Diamond and Relat. Mater. **8** (1999) 1620-1622
11. **Oxygen Surface Studies in Ultra-Thin Diamond using a Resonance Reaction and Transmission Channeled Rutherford Forward Scattering**
D.B. Rebuli, P. Aggerholm, J.E. Butler, S.H. Connell, T.E. Derry, B.P. Doyle, R.D. Maclear, J.P.F. Sellschop and E. Sideras-Haddad
Nucl. Instr. and Meth. B **158** (1999) 701-705
10. **Site Occupancy and Molecular Complex Formation of ^{19}F Ions in Fullerenes C_{60} and C_{70} Studied by TDPAD**
M.G. Bossenger, S.H. Connell, E. Sideras-Haddad, H. Appel, B.P. Doyle, W. Verwoerd, K. Bharuth-Ram, J.P.F. Sellschop, C.G. Fischer and V. Nolting
Hyperfine Interact. **120/121** (1999) 557-562
9. **Muonium studies of p-type semi-conducting diamond under conditions of UV-visible illumination**
I.Z. Machi, S.H. Connell, J. Major, C.G. Smallman, J.P.F. Sellschop, K. Bharuth-Ram, R.D. Maclear, B.P. Doyle, J.E. Butler, R. Scheuermann and A. Seeger
Hyperfine Interact. **120/121** (1999) 585-589
8. **Lattice locations of indium implanted in diamond**
B.P. Doyle, J.K. Dewhurst, J.E. Lowther and K. Bharuth-Ram
Phys. Rev. B **57** (1998) 4965-4967
7. **Quantitative trace hydrogen distributions in natural diamond using 3D-micro-ERDA microscopy**
R.D. Maclear, S.H. Connell, B.P. Doyle, I.Z. Machi, J.E. Butler, J.P.F. Sellschop, S.R. Naidoo and E. Fritsch

Nucl. Instr. and Meth. B **136-8** (1998) 579-582

6. **A study of the mobility and trapping of minor hydrogen concentrations in diamond in three dimensions using quantitative ERDA microscopy**
   S.H. Connell, J.P.F. Sellschop, J.E. Butler, R.D. Maclear, B.P. Doyle and I.Z. Machi
   Diamond and Relat. Mater. **7** (1998) 1714-1718
5. **3-D-micro-ERDA microscopy of trace hydrogen distributions in diamond using a 2-D-PSD with event reconstruction**
   B.P. Doyle, R.D. Maclear, S.H. Connell, P. Formenti, I.Z. Machi, J.E. Butler, P. Schaaff, J.P.F. Sellschop, E. Sideras-Haddad and K. Bharuth-Ram
   Nucl. Instr. and Meth. B **130** (1997) 204-210
4. **Hydrogen and Hydrogen-like Defects in Diamond**
   S.H. Connell, J.P.F. Sellschop, R.D. Maclear, B.P. Doyle, I.Z. Machi, R.W.N. Nilen, J.E. Butler and K. Bharuth-Ram
   Mat. Sci. For. **258-263** (1997) 751-756
3. **Heavy ion and proton beams in high resolution imaging of a fungi spore specimen using STIM tomography**
   P. Formenti, M.B.H. Breese, S.H. Connell, B.P. Doyle, M.L. Drummond, I.Z. Machi, R.D. Maclear, P. Schaaff, J.P.F. Sellschop, G. Bench, E. Sideras-Haddad, A. Antolak and D. Morse
   Nucl. Instr. and Meth. B **130** (1997) 230-236
2. **Hydrogen mobility in diamond studies using HI-ERDA microscopy**
   I.Z. Machi, S.H. Connell, P. Schaaff, B.P. Doyle, R.D. Maclear, K. Bharuth-Ram, P. Formenti and J.P.F. Sellschop
   Nucl. Instr. and Meth. B **127/128** (1997) 212-216
1. **The Schonland Micro-Scanning Ion Beam Analysis Facility**
   A.H. Andeweg, S. Ballestrero, J.U.M. Beer, J.E. Butler, M.B.H. Breese, S.H. Connell, L. Dini, B.P. Doyle, M.L. Drummond, P. Formenti, R.J. Hart, I.Z. Machi, R.D. Maclear, I.D. McQueen, P. Schaaff, E. Sideras-Haddad, J.P.F. Sellschop and G. Wernick
   Nucl. Instr. and Meth. B **130** (1997) 37-44

Refereed conference proceedings:

7. **Growth and structural characterization of germanium on Pt(111)**
   C. Dansou, G.B. Geetha, E. Carleschi and B.P. Doyle
   Proceedings of SAIP2018, the 63rd Annual Conference of the South African Institute of Physics, accepted
6. **A Study of Crack Formation and its Effect on Internal Surface Area using Micro-Focus X-ray Computerised Tomography and Fractal Geometry**
   T. Seakamela, G. Nothnagel, F.C. de Beer and B.P. Doyle
   Proceedings of SAIP2014, the 59th Annual Conference of the South African Institute of Physics, edited by Chris Engelbrecht and Steven Karataglidis (University of Johannesburg, 2015), pp. 120 - 125. ISBN: 978-0-620-65391-6. Available online at http://events.saip.org.za
5. **Synthesis and characterization of the semiconducting intermetallic compound $FeGa_3$**
   M.A.M. Ahmed, E. Carleschi, G.R. Hearne and B.P. Doyle
   Proceedings of SAIP2014, the 59th Annual Conference of the South African Institute of Physics, edited by Chris Engelbrecht and Steven Karataglidis (University of Johannesburg, 2015), pp. 2 - 6. ISBN: 978-0-620-65391-6. Available online at http://events.saip.org.za
4. **Low-Energy Electronic Structure and Fermi Surface of the Itinerant Metamagnet $Sr_3Ru_2O_7$**
   A.S. Ngankeu, E. Carleschi and B.P. Doyle
   Proceedings of SAIP2013: the 58th Annual Conference of the South African Institute of Physics, edited by Roelf Botha and Thulani Jili (2014), pp. 116 - 120. ISBN: 978-0-620-62819-8. Available online at http://events.saip.org.za
3. **Signature of Electron-Phonon Correlation in the Band Structure of $Sr_4Ru_3O_{10}$**
   P. Ngabonziza, E. Carleschi and B.P. Doyle
   Proceedings of SAIP2012: the 57th Annual Conference of the South African Institute of Physics, edited by Johan Janse van Rensburg (2014), pp. 153 - 157. ISBN: 978-1-77592-070-0. Available online at http://events.saip.org.za
2. **The BEAR Beamline at ELETTRA**
   S. Nannarone, F. Borgatti, A. DeLuisa, B.P. Doyle, G.C. Gazzadi, A. Giglia, P. Finetti, N. Mahne, L. Pasquali, M. Pedio, G. Selvaggi, G. Naletto, M.G. Pelizzo and G. Tondello
   AIP Conference Proceedings **705** (2004) 450-453
1. **TDPAD study of the ^{19}F interaction in C_{60} and C_{70}**
   M.G. Bossenger, S.H. Connell, E. Sideras-Haddad, H. Appel, B.P. Doyle, W. Verwoerd, K. Bharuth-Ram and J.P.F. Sellschop
   Proceedings of the 10th Int. Conference on Hyperfine Interactions II (1995) 452-455

International conference presentations - personally presented: including those which resulted in refereed articles in the previous section

13. **Analysis of the band dispersion of the bilayer ruthenate $Sr_3Ru_2O_7$ around the High Symmetry Points** (poster)
    E. Carleschi, A.S. Ngankeu, V.B. Zabolotnyy, T.K. Kim, I. Vobornik, M. Unnikrishnan, R. Fittipaldi, M. Cuoco, A. Vecchione, S.V. Borisenko and B.P. Doyle
    International workshop on strong correlations and angle-resolved photoemission spectroscopy (CORPES-15), Paris, France, 5-10th July 2015
12. **Synchrotron-based science in South Africa** (poster)
    B.P. Doyle
    LNLS-2 workshop, Campinas, Brazil, 27-28th August 2009
11. **Cobalt on calcium fluoride: initial stages of growth and magnetic properties** (poster)
    L. Pasquali, B.P. Doyle, F. Borgatti, A. Giglia, N. Mahne, M. Pedio, S. Nannarone, A.K. Kaveev, A.S. Balanev, B.B. Krichevtsov, S.M. Suturin, N.S. Sokolov
    23rd European Conference on Surface Science, Berlin, Germany, 4-9th September 2005
10. **High Pressure Studies of Magnetism in $Fe_{0.94}O$ with Nuclear Forward Scattering** (poster)
    G.R. Hearne, B.P. Doyle, J. Zhao, A. Barla, O. Leupold, R. Rüffer, C.A. McCammon and M.M. Abd-Elmeguid
    International Conference on Strongly Correlated Electron Systems, Cracow, Poland, 10-13th August 2002
9. **High Pressure Studies of Magnetism in Wüstite ($Fe_{0.94}O$) with Nuclear Forward Scattering** (oral)
    B.P. Doyle, G.R. Hearne, Z. Zhao, A. Barla, O. Leupold, R. Rüffer, C.A. McCammon and M.M. Abd-Elmeguid
    XXXIX European High Pressure Research Group Meeting, Santander, Spain, 16-19th September 2001
8. **High Pressure Research using Nuclear Resonant Scattering** (poster)
    B.P. Doyle, A. Barla and R. Rüffer
    High Pressure Satellite Workshop to ESRF Users Meeting, Grenoble, France, 16-17 February 2001
7. **High Pressure Research using Nuclear Resonant Scattering** (poster)
    B.P. Doyle, A. Barla and R. Rüffer
    Gordon Research Conference: Research at High Pressure, Meriden, USA, 25-30th June 2000
6. **Study of Indium-defect Interactions in Diamond using 2-D CEEC**(poster)
    B.P. Doyle, E.J. Storbeck, U. Wahl, S.H. Connell and J.P.F. Sellschop
    11th International Conference on Hyperfine Interactions, Durban, South Africa, 23-28th August 1998
5. **A 2-D CEEC Study of the Second Configuration observed for Indium implanted**

into Pure Diamond (poster)
E.J. Storbeck, U. Wahl, B.P. Doyle, S.H. Connell and J.P.F. Sellschop
11th International Conference on Hyperfine Interactions, Durban, South Africa, 23-28th August 1998

4. **The distribution of hydrogen in polycrystalline CVD diamond** (poster)
   R.D. Maclear, J.E. Butler, S.H. Connell, B.P. Doyle, I.Z. Machi, D.B. Rebuli, J.P.F. Sellschop and E. Sideras-Haddad
   6th International Conference on New Diamond Science and Technology, Pretoria, South Africa, 31 August - 4th September 1998
3. **Diffusion Characteristics of Hydrogen in Diamond** (poster)
   I.Z. Machi, J.E. Butler, S.H. Connell, B.P. Doyle, R.D. Maclear, J.P.F. Sellschop, E. Sideras-Haddad and D.B. Rebuli
   6th Int. Conf. on New Diamond Science and Technology, Pretoria, South Africa, 31st August - 4th September 1998
2. **3-D-micro-ERDA microscopy of trace hydrogen distributions in diamond using a 2-D-PSD with event reconstruction** (invited technical oral)
   B.P. Doyle, R.D. Maclear, S.H. Connell, P. Formenti, I.Z. Machi, J.E. Butler, P. Schaaff, J.P.F. Sellschop, E. Sideras-Haddad and K. Bharuth-Ram
   5th Int. Conf. on Nuclear Microprobe Technology and Applications, Santa Fe, USA, 10-15 November 1996
1. **The Schonland Micro-Scanning Ion Beam Analysis Facility** (poster)
   A.H. Andeweg, S. Ballestrero, J.U.M. Beer, J.E. Butler, M.B.H. Breese, S.H. Connell, L. Dini, B.P. Doyle, M.L. Drummond, P. Formenti, R.J. Hart, I.Z. Machi, R.D. Maclear, I.D. McQueen, P. Schaaff, E. Sideras-Haddad, J.P.F. Sellschop and G. Wernick
   5th Int. Conf. on Nuclear Microprobe Technology and Applications, Santa Fe, USA, 10-15 November 1996

Facility highlights, internal reports and non-refereed articles:

12. **New Insights on the Interaction between Thiophene Derivatives and Au Surfaces.**
    L. Pasquali, F. Terzi, R. Seeber, S. Mukherjee, M. Montecchi, B.P. Doyle and S. Nannarone
    Elettra Highlights 2011-2012, Trieste, Italy (2012) 70-71
11. **Good news for South African synchrotron users**
    B. Doyle
    Physics Comment, South African Institute of Physics, Issue 3, September 2009, 22-23
10. **The State of Synchrotron Research in South Africa**
    B. Doyle
    Physics Comment, South African Institute of Physics, Issue 1, March 2009, 10-11
9. **Feasibility Study for a South African Beamline at an International Synchrotron Radiation Source**
    Principal author: Bryan Doyle, Contributing authors: Trevor Sewell, Tony Joel, Herman Winick, Giovanni Hearne and Simon Connell
    Commissioned by the National Research Foundation, South Africa, 2007
8. **BEAR: a Bending Magnet for Emission Absorption and Reflectivity**
    S. Nannarone, A. Giglia, N. Mahne, A. De Luisa, B. Doyle, F.Borgatti, M. Pedio, L. Pasquali, G. Naletto, M.G. Pelizzo and G. Tondello
    Notiziario Neutroni e Luce di Sincrotrone, **12(1)** (2007) 8-19
7. **Sharp, mainly nonreactive metal-organic semiconductor interfaces: Ag and Sn on copper phalocyanine thin film**
    V.Yu. Aristov, O.V. Molodtsova, M. Knupfer, V.M. Zhilin, Yu.A. Ossipyan, D.V. Vyalikh, B.P. Doyle and S. Nannarone
    Elettra Highlights 2005-2006, Trieste, Italy (2006)
6. **The Unusual Magnetic Magnetic Properties of Samarium and its Compounds**
    A. Barla, J. Derr, J.P. Sanchez, B. Salce, G. Lapertot, B.P. Doyle, R. Rüffer, R. Lengsdorf, M.M. Abd-Elmeguid and J. Floquet
    ESRF Highlights 2005, Grenoble, France (2005)
5. **Efficiency of gratings in the conical diffraction mounting for an EUV time-compensated monochromator**
    L. Poletto, S. Bonora, M. Pascolini, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio and S. Nannarone
    SPIE Proc. **5534** (2004) 144-153
4. **The BEAR beamline at ELETTRA**
    F.Borgatti, A. De Luisa, B. Doyle, A. Giglia, N. Mahne, L. Pasquali, M. Pedio, G. Selvaggi, S. Nannarone, G. Naletto, M.G. Pelizzo and G. Tondello
    ELETTRA News, **47**, Trieste, Italy (2003)
3. **Pressure-induced Magnetic Order in Non-magnetic SmS**
    A. Barla, J.P. Sanchez, Y. Haga, G. Lapertot, B.P. Doyle, O. Leupold, R. Rüffer,

M.M. Abd-Elmeguid, R. Lengsdorf and J. Floquet
ESRF Highlights 2003, Grenoble, France (2003)

2. **Pressure induced magnetic order in the non-magnetic SmS**
   A. Barla, J.P. Sanchez, Y. Haga, G. Lapertot, B.P. Doyle, O. Leupold, R. Rüffer, M.M. Abd-Elmeguid, R. Lengsdorf and J. Floquet
   ESRF Newsletter **37***,* Grenoble, France (July 2003)
1. **Magnetic Instability in $U(In_{1-x}Sn_x)_3$ under High Pressure**
   A. Barla, J.P. Sanchez, B. Ni, B.P. Doyle, P. Vulliet, O. Leupold, R. Rüffer, D. Kaczorowski, J. Plessel and M.M. Abd-Elmeguid
   ESRF Highlights 2002, Grenoble, France (2002)

National conference presentations - personally presented:

11. **SYN 2.4 update** (oral)
    B.P. Doyle
    *c*change Symposium*, Modimolle, South Africa, 9-10th November 2018
10. **Instrumentation for XPS** (oral)
    B.P. Doyle
    XPS workshop @ UJ, Johannesburg, South Africa, 30th-31st January 2018
9. **Description of XPS spectra** (oral)
    B.P. Doyle
    XPS workshop @ UJ, Johannesburg, South Africa, 30th-31st January 2018
8. **SYN 2.4 update** (oral)
    B.P. Doyle
    *c*change Symposium*, Lanseria, South Africa, 17-18th November 2017
7. **The new XPS and ARPES surface science station at UJ** (oral)
    B.P. Doyle
    *c*change Symposium*, Champagne Sports Resort, Drakensberg, South Africa, 4-5th November 2016
6. **Physics at the surface** (keynote address)
    B.P. Doyle
    Science at Synchrotrons, Pretoria, South Africa, 9-13th February 2009
5. **Study of indium-defect interactions in diamond using 2-D CEEC** (poster)
    B.P. Doyle, E.J. Storbeck, U. Wahl, S.H. Connell and J.P.F. Sellschop
    SAIP Conference, Cape Town, South Africa, 8-10th July 1998
4. **A conversion electron emission channeling study of indium in diamond** (poster)
    E.J. Storbeck, U. Wahl, B.P. Doyle, S.H. Connell and J.P.F. Sellschop
    SAIP Conference, Cape Town, South Africa, 8-10th July 1998
3. **3-D Micro-ERDA microscopy of hydrogen distributions in diamond using a 2D PSD with event reconstruction** (oral)
    B.P. Doyle, P. Formenti, I.Z. Machi, R.D. Maclear, P. Schaaff, S.H. Connell and J.P.F. Sellschop
    SAIP conference, Pretoria, South Africa, 3rd-5th July 1996
2. **Molecular Effects in MeV electron channeling in diamond** (poster)
    E.J. Storbeck, B.P. Doyle, S.H. Connell, J.P.F. Sellschop and W. Verwoerd
    SAIP conference, Pretoria, South Africa, 3rd-5th July 1996
1. **Electron channeling observeables in diamond** (poster)
    E.J. Storbeck, S.H. Connell, J.P.F. Sellschop, B.P. Doyle and W. Verwoerd
    SAIP conference, Bellville, South Africa, 5-7th July 1995