

Curriculum Vitae

PERSONAL:

NAME: Sushil Auluck
DATE OF BIRTH: 27 September 1944
PLACE OF BIRTH: New-Delhi (India)
FAMILY: Married and Two Sons

OBJECTIVE:

Pushing out at the forefront of science and enabling others to do the same.

ACADEMIC:

Senior Cambridge	1961	Cambridge University	I Div 77%
B. Sc. (Hon) Physics	1965	Delhi University	I Div 74%
M. Sc. Physics	1967	Delhi University	I Div 75%
M. S. Physics	1970	University of Chicago	
Ph. D.	1973	University of Chicago	

AWARDS:

Delhi University Entrance Scholarship 1962-1965
Delhi University Post-Graduate Scholarship 1965-1967
Career award of University Grant Commission (India) 1980

EMPLOYMENT:

Instructor in Physics	University of Arizona	1972-1973
Research Associate	University of Roorkee	1973-1975

Asstt Prof. in Physics	Punjab Agril University	1975-1978
Lecturer in Physics	University of Roorkee	1978-1986
Reader in Physics	University of Roorkee	1986-1996
Professor in Physics	University of Roorkee & I. I. T. Roorkee	1996-now

FORIGEN VISITS:

Visiting Scientist	Ames Laboratory Iowa State Univ. USA	1983-1984 Summer of 2003, 05 and 2006
Temp Asstt Prof	North Dakota State	1984-1985
Visiting Scientist	JRC Karlsruhe	1990-1991
Visiting Scientist	Cond. Matter Theory Group, Uppsala	Periodic short visit, 1991- 2001
Visiting Scientist	Oak Ridge National Laboratory, USA	Summer 2005

REFERENCES:

Prof R. W. Stark	Physics Dept, Univ of Arizona, Tucson AZ 85721 USA
Prof S. K. Joshi	Director-General CSIR, Rafi Marg, New-Delhi INDIA
Prof B. N. Harmon	Physics Dept, Iowa State Univ, Ames IA 50011 USA
Prof M. J. G. Lee	Physics Dept, Univ of Toronto, Toronto(ONT) CANADA
Dr M. S. S. Brooks	European Institute for Transuranium Elements, Postfach 2340 D-W-7500 Karlsruhe 1, GERMANY
Prof B. Johansson	Condensed Matter Theory Group, Physics Department Uppsala University, Uppsala S-72151, SWEDEN
Dr. M. A. Khan	Institut de Physique et Chimi des Materiaux des Strasbourg, Univ Louis Pasteur, 23, rue du Loess, 67037 Strasbourg, FRANCE

Dr. David Singh

Solid State Division, ORNL, Oak Ridge, TN 37831-6032,
USA

RESEARCH COLLABORATORS:

.....

M. S. S. Brooks	ITU Karlsruhe GERMANY
B. Johansson.	CMTG Uppsala University SWEDEN
M. A. Khan.	IPCMS Strassbourg FRANCE
S. K. Dhar	TIFR Bombay INDIA
M. Rajagopalan	Anna University INDIA
Bruce Harmon	Ames Laboratory Iowa State Univ, USA
David Singh	Oak Ridge National Laboratory, USA

RESEARCH:

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Experimental dhva effect measurements

Theoretical Model calculations of electronic (hall coefficient, ultrasonic attenuation, thermo-electric) and dielectric properties of metals and semi-conductors.

Electronic band structure, Fermi surface, magnetism, and optical properties of metals and inter-metallic compounds using pseudopotentials, interpolation, KKR, mixed basis, LMTO FPLAPW and FPLMTO methods

GUIDING RESEARCH:

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- | | | | |
|----|--|----------------|----------------------------|
| 1. | Electronic properties of Copper and nickel | R. Prasad | 1976
partial/unofficial |
| 2. | Electrons, Phonons and their And their interactions in metals | G. S. Singh | 1978
partial/unofficial |
| 3. | Electronic properties of Pd and Pt | A. K. Bordoloi | 1982 |
| 4. | Electronic and optical properties of noble and transition metals | A. K. Ahuja | 1982 |

LIST OF PUBLICATIONS:

.....

A. In Referred Journals

1. Empirical correlation in the transition metal binary alloys
S. Auluck,
Phys Rev B7, 1201(1973)
2. Superconductivity in the palladium hydride system
S. Auluck
Nuovo Cim Let 7, 545 (1973)
3. Correlation between anisotropy in the normal state mass renormalisation and anisotropy in the superconducting energy gap
S. Auluck
J.Low Temp Phy 12,601(1973)
4. Temperature dependence of the electron phonon interaction in zinc
S. Auluck,
Phys Rev B9, 5334 (1974)
5. Renormalised electron velocities in Mg,Zn and Cd
S. Auluck,
J.Low Temp Phy 19, 39 (1975), ibid 23, 241(1976)
6. Giant kohn anomaly in a quasi one dimensional conductor
R.Prasad, S.Auluck, and S.K.Joshi,
J. Phys C8, 1139 (1975), ibid c8, 307(1975)
7. Wave vector dependent susceptibility and electronic dielectric function of copper
R.Prasad,S.Auluck, and S.K.Joshi,
J.Phys F5, 1385 (1975), ibid F5, 2425(1975)
8. Wave vector dependent susceptibility and electronic dielectric function of paramagnetic nickel
R. Prasad, S. Auluck, and S. K. Joshi
J. Phys F6, 889(1976)
9. Pseudopotential coefficients in zinc and cadmium
S. Auluck

- Phys Stat Solidi 74B, K129 (1976)
10. Effect of lattice change on the Fermi surface of zinc
R.W.Stark and S.Auluck,
J. Low Temp Phy 25,219(1976)
 11. Effect of pressure on the Fermi surface of cadmium
S.Auluck,
J. Low Temp Phy 22, 403 (1976)
 12. Anisotropy and temperature dependence of the electron phonon interaction in zinc
G. S. Singh, S. Auluck, and S .K. Joshi,
J. Phys F6, 1313(1976)
 13. Specific heat of superconducting zinc
S. Auluck and R. W. Stark,
In "Anisotropy effects in superconductors" Ed H. W. Weber, Plenum Press
Pg 293(1977)
 14. Band structure and Fermi surface of nickel
R. Prasad, S. Auluck, and S. K. Joshi,
Phys Rev B16, 1765(1977)
 15. Ultrasonic attenuation in superconducting zinc
S. Auluck
Phys.Rev B18, 522(1978)
 16. Inversion of cyclotron resonance data in cadmium
G. S. Singh, S. Auluck, S. K. Joshi,
Solid State Comm 27,353 (1978)
 17. On the penn gap in semiconductors
N. M. Ravindra, S. Auluck, and V. K. Srivastava,
Phy Stat Solidi 93B, K155 (1979)
 18. Temperature dependence of the energy gap in PbS,PbSe & PbTe
N.M. Ravindra, S. Auluck, and V. K. Srivastava,
Phy Stat Solidi 52A, K151 (1979)
 19. Wave vector dependent dielectric function for a model semiconductor
P. Sharma and S. Auluck

- Phys Rev B23, 874(1980)
20. Optical conductivity of copper in sd model
A.K.Ahuja,S.Auluck and S.K. Joshi,
Solid Stat Comm 31,275(1981)
 21. Transverse dielectric function for a model semiconductor
A. C. Sharma and S. Auluck,
Phys Rev B24, 4729(1981)
 22. Small wave-vector and frequency dependent longitudinal dielectric function for a model semiconductor
A.C. Sharma and S.Auluck,
Phy Stat Solidi 108b, 587 (1981)
 23. Optical mass and $\langle v^2 \rangle$ in the nearly free electron model
Harjeet Kaur and S.Auluck,
Phys Rev B25, 7558(1982)
 24. Modified calculations of $\epsilon(q,0)$ for a semiconductor
A. C. Sharma and S.Auluck,
Phys Rev B26, 1050(1983)
 25. Deformation parameter and ultrasonic attenuation in the nearly free electron model
Harjeet Kaur and S.Auluck,
Phys Rev B27, 2235(1983)
 26. Electronic structure of palladium
A.K.Bordoloi and S.Auluck,
Phys Rev B27, 5116 (1983)
 27. Fermi surface of copper using 8-cone model using non-local pseudo-potential
T. Nautiyal and S. Auluck,
Phy Stat Solidi 115B, 127(1983)
 28. Model study of the frequency dependent dielectric function of semiconductors
A.C.Sharma and S.Auluck,
Phys Rev B28, 965(1983)
 29. Local field corrections to the static dielectric function

- A. C. Sharma and S. Auluck,
Phys Lett 96A, 255 (1983)
30. Electronic structure of platinum
A. K. Bordoloi and S. Auluck,
J.Phys F13,2101(1983)
31. Density of states,joint density of states and optical conductivity of ferromagnetic nickel
A.K.Ahuja,S.Auluck, and S.K.Joshi,
Phy Stat Solidi 118B, 105(1983)
32. Application of special directions method to the optical properties of copper and silver
A.K.Ahuja,S.Auluck, and S.K. Joshi,
Phy Stat Solidi 118B, 575(1983)
33. Optical conductivity of paramagnetic iron
T.Nautiyal and S.Auluck,
J. Phys F13, 2419(1983)
34. Temperature dependence of effective masses in iii-v compound semiconductors
A. C. Sharma, N. M. Ravindra, S. Auluck, and V. K. Srivastava,
Phy Stat Solidi 120B, 715(1984)
35. Frequency dependent dielectric properties of semi-conductors including local field corrections-a model study
A. C. Sharma and S. Auluck,
J.Phys C16, 11233 (1984)
36. Fermi surface and optical properties of a Au-Ag alloy
T.Nautiyal and S.Auluck,
Phys Rev B30,6165(1984)
37. Electronic structure of LaRh₃B₂ and CeRh₃B₂
D.K.Misemer,S.Auluck, S.-I.Kobayas1 and B.N.Harmon,
Sol St Comm 52,955(1985)
38. Effect of zone boundaries on the pressure dependence of T_C for Al
H.Kaur and S.Auluck,

- J. Low Temp Phys 59,135(1985)
39. Photoemission, electronic structure, and magnetism in VPd_3
D.J. Sellmyer, S.S.Jaswal,D.k.misemer,S.Auluck, and A.J.Arko,
Phys Rev B31, 3356(1985)
 40. Wave-vector dependent electronic susceptibility the nfem
H.kaur and S.Auluck,
Phys Scrpt 31, 93 (1985)
 41. Simple model calculation of the optical constants of copper
A.K.Ahuja,S.Auluck and S.K.Joshi,
Phy Stat Sol 130B,607(1985)
 42. Electronic structure of ferromagnetic iron:Fermi surface
T.Nautiyal and S.Auluck,
Phys Rev B32,6424(1985)
 43. Electronic structure of ferromagnetic iron:band structure and optical properties
T Nautiyal and S.Auluck,
Phys Rev B34, 2299(1986)
 44. Mass enhancement factor Pd and Pt
A.K.Bordoloi and S.Auluck,
Pramana 30,435(1988)
 45. Frequency dependent dielectric function for Pd and Pt
A.K.Bordoloi and S.Auluck,
J Phys F18, 237(1988)
 46. Hall effect and thermoelectric power in the fem
H.kaur and S.Auluck
Phys Scrpt 39,370(1989)
 47. Fermi surface of noble metals
R. Ahuja,A. K. Solanki,T. Nautiyal, S. Auluck,
Pramana 32,831(1989)
 48. Electronic structure of MoPd_3 and MnPd_3
T. Nautiyal, S. Auluck
J.Phys.Cond Matter Physics 1, 2211(1989)

49. Effect of pressure on the Fermi surfaces of the noble metals
R.Ahuja, A. K. Solanki, S. Auluck
Phys Rev 39B, 9806(1989)
50. Electronic structure and magnetism in VPt3
T. Nautiyal, S. Auluck
Phy Rev 39B, 8718(1989)
51. Fermi surface characteristics of palladium
R.Ahuja,A.K.Solanki and S.Auluck,
Phy. Stat. Solidi 160B, 549(1990)
52. Fermi surface and mass enhancement factor for niobium
A.K.Solanki,R.Ahuja and S.Auluck,
Phy. Stat. Solidi 162B, 497(1990)
53. Effect of hydrostatic pressure on Fermi surface of Pd and Pt
R.Ahuja,A.K.Solanki and S.Auluck,
Phys Rev 43B, 2401(1991)
54. Fermi surface of platinum
R.Ahuja,A.K.Solanki and S.Auluck,
Phy. Stat. Solidi 168B, 509(1991)
55. Fermi surface characteristics and mass enhancement factor of tantalum
A.K.Solanki,R.Ahuja and S.Auluck,
Pramana 38,189(1992)
56. Fermi surface of ferromagnetic nickel
R.Ahuja,A.K.Solanki and S.Auluck,
Phys. Script. 45,621(1992)
57. Fermi surface properties of vanadium
A.K.Solanki,R.Ahuja and S.Auluck
Physica B179, 257(1992)
58. Density functional theory of molecular field interactions in r-m systems
M. S. S.Brooks, T.Gasche, S.Auluck, L. Nordstrom, I. Severin, J. Trygg and
B.Johannson,
JMMM 104-107 1382(1992)

59. Theory of the magnetism of ternary uranium compounds
T.Gasche, S.Auluck,M.S.S.Brooks and B. Johannson,
JMMM 104-107 37(1992)
60. Theory of the curie temperature of the rare earth metals
M.S.S.Brooks,S.Auluck,T.Gasche, L.Nordstrom, L.Severin, J.Trygg and
B.Johannson,
JMMM 104-107 1492(1992)
61. Calculated ground state properties of ternary uranium compounds
T.Gasche,S.Auluck,M.S.S.Brooks and B.Johannson,
J Appl Phys 70, 6580(1992)
62. Ab initio calculations of molecular field interaction in rare earth transition metal
intermetallics
M.S.S.Brooks,T.Gasche, S.Auluck,L.Nordstrom,L.Severin,J.Trygg and
B.Johannson,
J Appl Phys 70, 5972(1992)
63. Magnetic and magneto-optical properties of US
S.Auluck, T.Gasche,M.S.S.Brooks and B.Johannson,
JMMM 104-107 35(1992)
64. Electronic structure and Fermi surface of Ni₃Al
T.Nautiyal and S.Auluck,
Phys. Rev. B45, 13930(1992)
65. Effect of pressure on Fermi surface of metals
R.Ahuja,A.K.Solanki,T.Nautiyal and S.Auluck
In recent trends in high pressure research Ed A.K.Singh Pg 86 (Oxford,India)1992
66. Fermi surface of copper under strain
R.Ahuja,A.K.Solanki,and S.Auluck
In recent trends in high pressure research Ed A.K.Singh Pg 91(Oxford,India)1992
67. The Fermi surface of vb transition metals under hydrostatic pressure
A.K.Solanki,R.Ahuja and S.Auluck
In recent trends in high pressure research Ed A.K.Singh Pg 94 (Oxford,India)1992
68. Effect of pressure on the Fermi surface of nickel

- R.Ahuja,A.K.Solanki and S.Auluck,
Phys.rev.B46, 3785(1992)
69. Electronic structure of Pd₃Fe: effect of pressure
T.Nautiyal and S.Auluck,
Physica Scripta 46,527 (1992)
70. Electronic structure and Fermi surface of Ni₃Fe
T.Nautiyal and S.Auluck,
Phys Rev B47 1746(1993)
71. Electronic structure and Fermi surface of Ni₃Mn
T.Nautiyal and S.Auluck,
Phys Rev B47 12921(1993)
72. Effect of strain on the Fermi surface of noble metals
R.Ahuja,A.K.Solanki and S.Auluck,
Phys Rev B 48 1373(1993)
73. Interband optical properties of Ni₃Al
M.A.Khan,Arti Kashyap, A.K.Solanki,T.Nautiyal and S.Auluck
Phys Rev B48, 16974 (1993)
74. Electronic structure and Fermi surface of Ni₃Pt
Arti kashap,T.Nautiyal and S.Auluck ,
Physica B193, 248(1994)
75. Effect of hydrostatic pressure on Fermi surface of Nb, V, Ta
A.K.Solanki,R.Ahuja and S.Auluck,
Phys Stat Solidi B182, 377(1994)
76. Optical properties of PdO and PtO
R.Ahuja,S.Auluck,B.Johansson and M.A.Khan,
Phys Rev B50, 2128(1994)
77. Electronic structure, magnetism and Fermi surface of Gd and Tb
R.Ahuja,S.Auluck,B.Johansson and M.S.S.Brooks ,Phys Rev B50,5157
(1994)
78. Fermi surface of the noble metals:fp-gga calculation
R.Ahuja, S.Auluck,P.Soderlind,o.eriksson,J.M.Wills and B.Johansson,

- Phys Rev B50, 11183(1994)
79. Effect of non-local corrections to the spin density functional theory for the Fermi surface of ferromagnetic nickel
R.Ahuja, S.Auluck and B.Johansson,
Phys Script 50,573(1994)
 80. Electronic structure and stoner I in RPd_3 compound
T.Nautiyal, S.Auluck and M.S.S.Brooks
JAP 75, 6298(1994)
 81. Band structure calculation of heavy Fermion YbSbPd and YbSbNi
A.K.Solanki,Arti Kashyap,S.Auluck and M.S.S.Brooks
JAP 75, 6301 (1994)
 82. Anisotropic dielectric response of ferromagnetic cobalt
R.Ahuja,S.Auluck,B.Johansson,M.A.Khan,
J. Mag and Mag Mater, 140/144, 89 (1995)
 83. Pressure dependence of optical gaps in graphite
S.Auluck and M.S.S.Brooks
High Pres Res 13,193 (1995)
 84. Fermi Surface of alkali metals using FPLMTO
R.Ahuja,S.Auluck, O.Erickson,J.M.Wills and B.Johansson
Phys.Rev.B50,18003 (1995).
 85. Optical properties of AlN
A.K.Solanki,A.Kashyap,T.Nautiyal,S. Auluck,M.A.Khan
Solid State Comm 94, 1009 (1995)
 86. Electronic properties of graphite
R.Ahuja,S.Auluck,O.Erickson J.M.Wills and B.Johansson
Phys.Rev.B51, 4813 (1995)
 87. Effect of pressure on the curie temperature of Fe_3Pt
Arti Kashyap,A.K.Solanki,T.Nautiyal and S.Auluck
Phys.Rev.B52, 13471 (1995)
 88. Optical properties of the group ivb refractory metal compounds

- Anna Delin, Olle Eriksson, Rajeev Ahuja, Borje Johansson, M.S.S.
Brooks, Thomas Gasche, Sushil Auluck and J.M.Wills,
Phys Rev 54B 1673 (1996)
89. Pressure induced magnetic phase transition in Fe₃Pt
M.Rajagopalan, A.Kashyap, S.Auluck and G.Kalpna,
J of Alloys and Compounds 200,124 (1996)
90. Electronic and optical properties of HgI₂
R.Ahuja, S.Auluck, O.Eriksson, J.M.Wills and B.Johansson
Phys Rev 54B 10419 (1996)
91. Electronic properties of graphite
A.K.Solanki, Arti Kashyap, T.Nautiyal, S.Auluck and M.A.Khan
In 'Disordered Materials-current developments' ed D.K.Chaturvedi and G.E
Murch, TransTech Publications 1996 in Materials Science Forum Vol 223-224
page 133-140
92. Copt system-a calculation of Curie temperature
Arti Kashyap, A.K.Solanki, T.Nautiyal and S.Auluck
In 'Disordered materials-current developments' ed d.k.chaturvedi and G.E Murch
, TransTech Publications 1996 in Materials Science Forum Vol 223-224 page 141-
145
93. Optical properties of graphite
A.Kashyap, A.K.Solanki, T.Nautiyal, S.Auluck and M.A.Khan M
Sol. St. Comm 100,645 (1996)
94. Optical properties of HgI₂
A.Kashyap, A.K.Solanki, T.Nautiyal, S.Auluck and M.A.Khan,
Phys Rev 55B 9216 (1997)
95. Optical properties of graphite from first principles calculations
R.Ahuja, S.Auluck, J.M.Wills, M.Alouani, B.Johansson and O.Eriksson
Phys Rev B55 4999 (1997)
96. Fermi Surface and Optical Properties of Cu₃Au
Sangeeta Sharma, A.K.Solanki, M.A.Khan and S.Auluck, Phys
Rev B56, 10172 (1997)

97. Optical Properties of monoclinic SnI₂ from relativistic first principles theory
P Ravindran, A Delin, R Ahuja, B Johansson, S Auluck, J M Wills and O Eriksson,
Phys Rev B 56, 6851 (1997)
98. Effect of pressure on fermi surface of noble metals from WIEN97
P Ravindran, S Auluck, B Johansson, P Blaha, K Schwarz, and O Eriksson
in Proc IV NCST pg 335 (1997)
99. Calculated electronic and optical properties of graphite intercalation compound:
LiC₆
R Ahuja, S Auluck, O Eriksson and B Johansson
J Cond Mat Phys 9 , 9845 (1997)
100. Fermi Surface and Optical Properties of ordered Cu₃Au
S Sharma, A. K. Solanki, S. Auluck and M. A .Khan
In The Physics of Disordered Materials, ed M. P. Saxena, N. S. Saxena and
Deepika Bhandari NISCOM (1997) pg 176
101. Electronic and optical properties of InP
R. Ahuja, S. Auluck O. Eriksson, J. M. Wills and B. Johansson,
Sol St Com 104, 249 (1997)
102. Calculated optical properties of solar energy material: CuGaS₂
R. Ahuja, S. Auluck, O. Eriksson, J. M. Wills and B. Johansson
Solar Energy Materilas and Solar Cells 53, 357 (1998)
103. Electronic structure of 1T-TiS₂
S. Sharma, T. Nautiyal, G. S. Singh, S. Auluck, P. Blaha and Claudia Ambrosch,
Phys Rev 59B 14833 (1999)
104. Electronic structure, fermi surface and Curie Temperature of CoPt system
A. Kashyap, K. B. Garg, A. K. Solanki, T. NautiyaL and S. Auluck
Phys Rev 60B, 2262 (1999)
105. Optical Properties and band structure of 2H-WSe₂
S. Sharma, Claudia Ambrosch, M. A. Khan, S. Auluck and P. Blaha,
Phys Rev B 60B, 8610 (1999)
106. Calculated magneto-optical properties of cubic and tetragonal Fe, Co and Ni
Anna Delin, O. Eriksson, B. Johansson, S. Auluck and J. M. Wills

- Phys Rev 60B, 14105 (1999)
107. Optical properties of 1T and 2H phases of TaS₂ and TaSe₂
Sangeeta Sharma, S. Auluck and M. A. Khan,
Pramana 54,431 (2000)
 108. Electronic structure and optical properties of ThPd₃ and UPd₃
T. Nautiyal, S.Auluck,P. Blaha & C Ambrosch-Draxl
Phys. Rev B62, 15547 (2000)
 109. Optical Properties of PbS & PbSe
Ali Reshak,S.Sharma & S.Auluck
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D.Varandani & K.Lal (NPL) 2001
 110. Optical properties of MoS₂ & LiMoS₂
Ali Reshak,S.Sharma & S.Auluck
In Adv in High Pressure Science & Technology Eds. A.K.Bandopadyaya,
D.Varandani & K.Lal (NPL) 2001.
 111. Electronic & optical properties of BaTiO₃
G.Gupta,T.Nautiyal and S. Auluck
In Adv in High Pressure Science & Technology Eds. A.K. Bandopadhyaya,
D.Varandani & K.Lal (NPL) 2001.
 112. Calculated optical properties of 2H-MoS₂ intercalated with lithium
A. H. Reshak and S. Auluck,
Phys Rev B68, 125101 (2003)
 113. Electronic and optical properties of 2H-WSe₂ intercalated with copper
A. H. Reshak and S. Auluck
Phys Rev B68 195107 (2003)
 114. Electronic and optical properties of the 1T phase of TiS₂, TiSe₂ and Ti Te₂
A. H. Reshak and S. Auluck,
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 115. Optical properties of the compounds BaTiO₃ & SrTiO₃
Garima Gupta Tashi Nautiyal & S. Auluck,
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Ali H Reshak S. Auluck, *Physica B*349 310-315 (2004)
117. Theoretical investigation of the electronic and optical properties of 1T-ZrX₂ (X=S,Se,Te)
Ali H Reshak & S. Auluck,
*Physica B*353,230-237 (2004)
118. Full-potential calculations of the electronic and optical properties of 1T and 2H phases of TaS₂ & TaSe₂
Ali H Reshak & S. Auluck,
*Physica B*358, 158 (2005)
119. Ab initio calculations of the electronic & optical properties of the 1T-HfX₂ compounds
Ali H Reshak & S. Auluck,
*Physica B*363, 25-31 (2005)
120. Band structure & optical response of 2H-MoX₂ compounds (X=S, Se, Te)
Ali H Reshak & S. Auluck,
*Phys Rev B*71, 155114 (2005)
121. Electronic structure & bulk spin valve behaviour in Ca₃Ru₂O₇
D. J. Singh & S. Auluck,
Phys Rev Lett. 96, 097203 (2006)
122. Optical properties & electronic structure of spinel ZnRh₂O₄
D. J. Singh, R. C. Rai, J. L. Musfeldt, S. Auluck, Nirpendra Singh, P. Khalifah, S. McClure & D. G. Mandrus,
Chem. Mater. 18 pg 2696-2700 (2006)
123. Photoinduced non-linear optical effects in lanthanum calcium borate single crystals
Ali H Reshak, S. Auluck, I. V. Kityk, A. Majchrowski, D. Kasprowicz, M. Drozdowski, J. Kisielewski, T. Lukasiewicz and E. Michalski
J Mater Sci 41 pg 1927-1932 (2006)

124. Ab initio calculations of the linear and nonlinear optical properties of the zinc chalcogenides
Ali H reshak and S. Auluck
Physica B
125. Band energy and thermoelectricity of filled skutterudites LaFe₄Sb₁₂ and CeFe₄Sb₁₂
K. Nouneh, A. H. Reshak, S. Auluck, I. V. Kityk, R. Viennois, S. Benet and S. Charar,
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B. In Conferences

1. Electronic properties of copper
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2. Fermi surface of ferromagnetic nickel
R.Prasad,S.Auluck and ,S.K.Joshi
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3. Superconductivity in Sc-Zr system
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4. Wave-vector dependent dielectric function for a model semiconductor
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5. Optical conductivity of copper in sd model
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6. Transeverse dielectric function for a model semiconductor
A.C.Sharma and S.Auluck,
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7. Optical constants of noble metals
A.K.Ahuja,S.Auluck, and S.K.Joshi
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8. Fermi surface of palladium
A.K.Bordoloi and S.Auluck
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