

## RESUME

### **ANIL R. CHOURASIA**

Professor  
Department of Physics  
Texas A & M University - Commerce  
Commerce, Texas, 75429.

Phone: (903) 886-5485  
Fax: (903) 886-5480  
e-mail: Anil\_Chourasia@boisdarc.tamu-commerce.edu

### **EDUCATION**

Ph.D. (Physics) Nagpur University, Nagpur, India (1986)  
Dissertation title : "X-ray Spectroscopic Investigation of some compounds of Germanium and Arsenic."

M.Sc. (Physics) Nagpur University, Nagpur, India (1978)

B.Sc. (Physics, Mathematics, Chemistry) Nagpur University, Nagpur, India (1975)

### **EXPERIENCE**

Professor  
(Fall 2006-Present) Texas A&M University-Commerce  
Department of Physics

Acting Head  
(Jun 2004-May 2005) Texas A&M University-Commerce  
Department of Physics

Associate Professor  
(2001 - Summer 2006) Texas A & M University-Commerce  
Department of Physics

Assistant Professor  
of Physics  
(Non-tenure track)  
(1996 - 2001) Texas A & M University - Commerce  
(Formerly known as East Texas State Univ)  
Department of Physics

Visiting Scientist: National Research Institute for Metals, (Jan. 96 - March 96) Tsukuba, Japan (Extended X-ray Absorption Fine Structure (EXAFS) utilizing high intensity x-ray beam from modified rotating anode tube.)

Argonne National Laboratory, Illinois, Summer 1998.

Royal Melbourne Institute of Technology, Melbourne, Australia  
June - July, 2005

Adjunct Faculty: East Texas State University,  
(1992 - 1996) Department of Physics  
Research Associate: East Texas State University,  
(1985-90 & 91-95) Department of Physics  
Teaching: Teaching undergraduate and graduate courses in Physics; Guiding  
graduate and undergraduate students in research theses

Research: UHV Techniques  
Thin Film Deposition and Characterization using X-ray Photoelectron  
Spectroscopy, RHEED and Appearance Potential Spectroscopy  
Low temperature electrical resistivity, magnetoresistance, and Hall  
Effect.

Computer Experience: Familiar with Fortran, Basic, C, DOS, UNIX, computer  
interfacing. Write my own application programs.

Research Scholar: Nagpur University, Nagpur, India (1979-1985). Analyzed the  
Extended X-ray Absorption Fine Structure (EXAFS) associated with  
the Ge K absorption discontinuity in the rare earth intermetallics of  
the type RGe<sub>2</sub>. Studied the electronic structure of arsenic  
chalcogenides with the help of X-ray absorption spectroscopy.

## **GRANTS**

### **Internal**

Organized Research, A&M-Commerce	1997-98
TEES	1997
Organized Research, A&M-Commerce	2000-01
Organized Research, A&M-Commerce	2005-06

### **External**

* NSF Project "NIRT-Molecular Nanomagnets: Magnetic and Electronic Properties of Novel Magnetic Nanostructures and Nanostructured Materials" (\$ 7000)	Summer 2003 Texas A&M Univ- College Station
--	---

\* Research Corporation 2005-2007  
“Chemical Reactivity at Hf/SiO<sub>2</sub> Interface”  
(\$ 43,650)

### **PROFESSIONAL MEMBERSHIPS**

American Physical Society  
American Vacuum Society

### **COMMITTEE SERVICES**

Physics Senator  
Facilities and Scheduling Committee  
Departmental Graduate Co-ordinator  
Departmental Library Representative  
Coordinator, Departmental Scholarship Committee  
Various Departmental and University Committees

### **EXTERNAL RESEARCH COLLABORATION**

The University of Houston  
The University of Arlington  
University of North Texas  
Royal Melbourne Institute of Technology, Australia

### **HONORS AND AWARD**

Listed in Who's Who Among America's Teachers (Educational Communications, Inc., Lake Forest, IL)	2000
Sigma Xi Research Award	1992
Robert A. Welch Foundation Fellowship	1991-1995
Robert A. Welch Foundation Fellowship	1985-1990
Junior & Senior Research Fellowship, Council of Scientific & Industrial Research, New Delhi, India	1979-1984
Open Merit Scholarship, Govt. of Maharashtra, India	1976-1978
Talent Development in Math, Govt. of Maharashtra	1972-1975

## **THESES**

### **Graduate**

Christi Emery	Summer 1998
Steve Hood	Spring 1999
Sangho Bae	Spring 2002
Tao Jiang	Fall 2002
S. H. McKinney	May 2003
Richard Miller	Summer 2006
Hong Dong	Summer 2009

### **Undergraduate (Honors Thesis)**

Richard Miller	May 2004
----------------	----------

## **PUBLICATIONS IN REFEREED JOURNALS**

1. Chemical shifts in K absorption discontinuities of germanium and selenium in some amorphous compounds.  
Y. L. Rao, A. R. Chourasia & C. Mande.  
Journal of Non-crystalline Solids 43, 13-19 (1981).
2. EXAFS study of intermetallics of the type  $RGe_2$  ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ).  
A. R. Chourasia, V. D. Chafekar, S. D. Deshpande, V. B. Sapre & C. Mande.  
Springer Proceedings in Physics 2, 455- 457 (1984).
3. EXAFS study of intermetallics of the type  $RGe_2$  ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ) Part I: Determination of Ge-Ge distances.  
A. R. Chourasia, V. D. Chafekar, S. D. Deshpande & C. Mande.  
Pramana 24, 787-796 (1985).
4. EXAFS study of intermetallics of the type  $RGe_2$  ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ) Part II: Determination of Ge-R distances.  
A. R. Chourasia, V. D. Chafekar & C. Mande.  
Pramana 24, 867-873 (1985).
5. X-ray spectroscopic study of arsenic chalcogenides of the type  $As_2X_3$  ( where X = O,S,Se and Te ).  
C. Mande & A. R. Chourasia.  
Indian Journal of Physics 60B, 72-83 (1986).
6. Study of 4f levels in lanthanides by Appearance Potential Spectroscopy.

- D. R. Chopra, A. R. Chourasia & P. V. Prasad.  
Journal of Electron Spectroscopy and Related Phenomena 41, 167-173 (1986).
7. Study of the Ti/Si Interface using X-ray Photoelectron and Auger Electron Appearance Potential Spectroscopies.  
D. R. Chopra, A. R. Chourasia, T. R. Dillingham, K. L. Peterson & B. Gnade.  
Journal of Vacuum Science and Technology A 5, 1984-1987 (1987).
  8. XPS study of the Ni/Si oxide/Si Interface.  
T. R. Dillingham, A. R. Chourasia, D. R. Chopra, S. R. Martin, K. L. Peterson, C. Z. Hu and B. Gnade.  
Journal of Vacuum Science and Technology A 5, 3340-3345 (1987).
  9. A study of LaH<sub>3</sub> by Auger Electron Appearance Potential Spectroscopy.  
A. R. Chourasia and D. R. Chopra.  
Journal of Electron Spectroscopy and Related Phenomena 43, 233-241(1987).
  10. Soft X-ray Appearance Potential study of Ni<sub>74</sub>Fe<sub>26</sub>.  
A. R. Chourasia and D. R. Chopra.  
Surface Science 206, 484-494 (1988).
  11. SXAPS study of Nd<sub>2</sub>Fe<sub>14</sub>B.  
A. R. Chourasia and D. R. Chopra.  
Journal of Less Common Metals 148, 413-420 (1989).
  12. SXAPS study of Pr<sub>2</sub>Fe<sub>14-x</sub>Co<sub>x</sub>B.  
A. R. Chourasia and D. R. Chopra.  
Journal of Vacuum Science and Technology A 7, 2075-2079 (1989).
  13. Soft X-ray Appearance Potential Spectroscopy study of Ni-Fe alloys.  
A. R. Chourasia and D. R. Chopra.  
Nuclear Instruments and Methods B40/41, 376-378 (1989).
  14. X-ray photoelectron study of Al-Mn Alloys.  
A. R. Chourasia and D. R. Chopra.  
Journal of Electron Spectroscopy and Related Phenomena 52, 541-550 (1990).
  15. Deposition of Diamond Films at Low Pressures and their Characterization by Positron annihilation, Raman, SEM, and XPS.  
S. C. Sharma, C. A. Dark, R. C. Hyer, M. Green, T. D. Black, A. R. Chourasia, D. R. Chopra, and K. K. Mishra.  
Applied Physics Letters 56, 1781-1783 (1990).
  16. Characterization of Low Pressure Deposited Diamond Films by X-ray Photoelectron

Spectroscopy.

A. R. Chourasia, D. R. Chopra, S.C. Sharma, M.Green, C.A.Dark, R.C. Hyer.  
Thin Solid Films 193/194, 1079-1086 (1990).

17. Growth of Diamond and Diamond-like Carbon Films and Characterization by Raman, Scanning Electron Microscopy, and X-ray Photoelectron Spectroscopy.  
S. C. Sharma, M. Green, R. C. Hyer, C. A. Dark, T. D. Black, A. R. Chourasia, D. R. Chopra, and K. K. Mishra.  
Journal of Materials Research 5, 2424-2432 (1990).
18. Diamond and Amorphous Carbon Films.  
D. R. Chopra, A. R. Chourasia, M. Green, R. C. Hyer, K. K. Mishra, & S.C. Sharma.  
Surface Modification Technologies IV, 583-591 (1991).
19. A Study of Y-Ba-Cu-O/Si Interfaces by X-ray Photoelectron Spectroscopy.  
A. R. Chourasia, D. R. Chopra, A. H. Bensaoula, A. Bensaoula, and P. Ruzakowski.  
Journal of Vacuum Science and Technology A 10, 115-121 (1992).
20. A Study of YBaCuO/W/Si by X-ray Photoelectron Spectroscopy.  
D. R. Chopra, A. R. Chourasia, Li Chen, A. H. Bensaoula, and A. Bensaoula.  
Journal of Vacuum Science and Technology A 10, 1547-1553 (1992).
21. Sputter Deposited Aluminum Nitride.  
A. R. Chourasia, D. R. Chopra, and T. K. Hatwar.  
Surface Science Spectra 1, 75-79 (1992).
22. Angle-resolved X-ray Photoemission study of CaF<sub>2</sub>/Si(111) Interfaces.  
A. R. Chourasia, D. R. Chopra, C-C. Cho and B. E. Gnade.  
Surface Science 275, 424-432 (1992).
23. X-ray photoelectron study of TiN.  
A. R. Chourasia and D. R. Chopra  
Surface Science Spectra 1, 233- 237 (1992).
24. Scanning Tunneling Microscopy of the Electronic Structure of Chemical Vapor Deposited Diamond Films.  
J. M. Perez, C. Lin, W. Rivera, R. C. Hyer, M. Green, S. C. Sharma, D. R. Chopra and A. R. Chourasia  
Applied Physics Letters 62, 1889-1891 (1993).
25. A Study of Si<sub>3</sub>N<sub>4</sub> by XPS.  
A. R. Chourasia and D. R. Chopra  
Surface Science Spectra, 2, 117-122 (1994).

26. A Study of the Electronic Structure of  $\text{GdMn}_2$  by Appearance Potential Spectroscopy.  
A. R. Chourasia, D. R. Chopra and G. Wiesinger  
*Journal of Electron Spectroscopy and Related Phenomena* 70, 23-28(1994).
27. Appearance Potential Study of  $\text{PrMn}_2$  and  $\text{SmMn}_2$  Intermetallics.  
A. R. Chourasia, M. A. Seabolt, R. L. Justiss, D. R. Chopra, and G. Wiesinger  
*Journal of Alloys and Compounds*, 224, 287-291 (1995).
28. Elemental Manganese studied by X-ray Photoelectron Spectroscopy using Mg and Zr Radiations.  
A. R. Chourasia and D. R. Chopra  
*Surface Science Spectra*, 3, 74-81 (1995).
29. X-ray Photoelectron study of  $\text{TiN/SiO}_2$  and  $\text{TiN/Si}$  Interfaces.  
A. R. Chourasia and D. R. Chopra  
*Thin Solid Films* 266, 298-301 (1995).
30. A Study of Si-Compounds by Zr La Photoelectron Spectroscopy.  
A. R. Chourasia, S. J. Hood, and D. R. Chopra  
*Journal of Vacuum Science and Technology A* 14, 699-703 (1996).
31. Core level XPS Spectra of elemental silicon using zirconium radiation.  
A. R. Chourasia  
*Surface Science Spectra* 5, 115-121 (1998).
32. A Study of  $\text{CrN}_x$  Thin Films by X-ray Photoelectron Spectroscopy.  
Christi Emery, A. R. Chourasia, and P. Yashar  
*Journal of Electron Spectroscopy and Related Phenomena*  
104, 91-97 (1999).
33. Soft X-ray Appearance Potential Study of Rare Earth-manganese Compounds.  
A. R. Chourasia and S. D. Deshpande  
*AIP CP475, Applications of Accelerators in Research and Industry*,  
Edited by J. L. Duggan and I. L. Morgan  
488-491 (1999).
34. Spin dynamics and absence of a central peak anomaly in  $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ .  
J. J. Rhyne, H. Kaiser, L. Stumpe, J. F. Mitchell, T. McCloskey, and A. R. Chourasia  
*Journal of Applied Physics* 87, 5813 (2000).
35. Core level XPS spectra of Cr and N in chromium nitride films  
A. R. Chourasia  
*Surface Science Spectra* 7, 150-166 (2000).

36. Auger electron appearance potential spectroscopy study of CrN<sub>x</sub> Films.  
A. R. Chourasia and S. J. Hood  
Surface and Interface Analysis, 31, 291-296 (2001).
37. Core level XPS spectra of silicon carbide using Zirconium and Magnesium radiation  
A. R. Chourasia  
Surface Science Spectra 8, 45-55 (2001).
38. Composition dependence of the spin wave stiffness parameter in La<sub>1-x</sub>CaxMnO<sub>3</sub>  
CMR materials  
J. J. Rhyne, H. Kaiser, L. Stumpe, J. F. Mitchell, T. McCloskey, and A. R. Chourasia  
Journal of Magnetism and Magnetic Materials, 226-230, 775-776 (2001).
39. Effects of Growth and Postgrowth Parameters on the Microstructure and Copper distribution in Al(Cu)/SiO<sub>2</sub> Thin Films  
N. Hozhabri, K. M. Watson, S. C. Sharma, and A. R. Chourasia  
Journal of Electronics materials, 81, L7-L10 (2002).
40. A. Study of Amorphous Ti-Ni Alloys by X-ray Photoelectron Spectroscopy  
M. A. Seabolt, W. R. Ogden, A. R. Chourasia, and A. Ishida  
Journal of Electron Spectroscopy and Related Phenomena, 135, 135-141 (2004).
41. Auger Parameter of Hafnium in Elemental Hafnium and in Hafnium oxide  
A. R. Chourasia and R. L. Miller  
Surface Science, 573, 320-326 (2004).
42. Core level of Silicon Dioxide using zirconium and magnesium radiations  
A. R. Chourasia  
Surface Science Spectra, 13, 48-57 (2008)
43. Core level spectroscopy of elemental hafnium and hafnium dioxide  
R. L. Miller, S. H. McKinney, and A. R. Chourasia  
Surface Science Spectra (In Press)
44. X-ray Photoemission study of the oxidation of hafnium  
A. R. Chourasia, J. L. Hickman, R. L. Miller, G. A. Nixon, and M. A. Seabolt  
International Journal of Spectroscopy, vol. 2009, Article ID 439065, 6 pages, 2009. doi:10.1155/2009/439065

## **REVIEW ARTICLES AND BOOK CONTRIBUTION**



1. Appearance Potential Spectroscopy of Solid Surfaces.  
D. R. Chopra and A. R. Chourasia.  
Scanning Micros. 2, 677-702 (1988).
2. Characterization of semiconductor surfaces by Appearance Potential Spectroscopy.  
D. R. Chopra and A. R. Chourasia.  
"Characterization of semiconductor materials" Vol 1.  
Editor Dr. G. McGuire (Noyes Publication, 1989) pp 289-327.
3. Surface Characterization.  
J. E. Fulghum, G. E. McGuire, I. H. Musselman, R. J. Nemanich, J. M. White, D. R. Chopra, and A. R. Chourasia.  
Analytical Chemistry 61, 243R-269R (1989).
4. Surface Characterization.  
G. E. McGuire, M. A. Ray, S. J. Simko, F. K. Perkins, S. L. Brandow, A. Dobisz, R. J. Nemanich, A. R. Chourasia and D. R. Chopra.  
Analytical Chemistry 65, 311R-333R (1993).
5. Surface Characterization  
G. E. McGuire, M. L. Swanson, N. R. Parikh, S. Simko, P. S. Weiss, J. H. Ferris, R. J. Nemanich, D. R. Chopra and A. R. Chourasia  
Analytical Chemistry 67, 199R-220R (1995).
6. Appearance Potential Spectroscopy  
D. R. Chopra and A. R. Chourasia  
Surface Analysis, Encyclopedia of Analytical Science, Academic Press, England, pp. 4893-4899 (1996).
7. X-ray Photoelectron Spectroscopy  
D. R. Chopra and A. R. Chourasia  
Chapter contribution to the Handbook of Analytical Chemistry, (Prentice Hall, 1997), Chapter 43, pp. 809-827.
8. Auger Electron Spectroscopy  
A. R. Chourasia and D. R. Chopra  
Chapter contribution to the Handbook of Analytical Chemistry, (Prentice Hall, 1997), Chapter 42, pp. 791-808.
9. Appearance Potential Spectroscopy: A Surface Sensitive Technique to Characterize Materials  
A. R. Chourasia  
Trends in Vacuum Science and Technology, 2, 113-121 (1997).

10. Appearance Potential Spectroscopy  
A. R. Chourasia  
Encyclopedia of Analytical Science, Second Edition  
Surface Analysis, Encyclopedia of Analytical Science (Academic Press) England,  
Second Edition, 474-481 (2004).

## **PAPERS PRESENTED AT CONFERENCES AND SYMPOSIA**

1. Study of the 4f levels in Lanthanides by Appearance Potential Spectroscopy.  
American Physical Society, April 4, 1986 at The Univ. of Texas at Dallas, Texas.
2. Electronic Properties of Transition Metal-Silicon Interfaces.  
American Chemical Society, Houston, Nov. 19, 1986.
3. XPS study of Transition Metal-Silicon Interfaces.  
American Physical Society, March 6, 1987 at Abilene Christian University, Abilene, Texas.
4. Appearance Potential Study of Ni<sub>74</sub>Fe<sub>26</sub>.  
March 4, 1988 at the 91st Annual Meeting of Texas Academy of Science, Commerce, Texas.
5. A study of W-Ti-Si and W-Ti-Si<sub>2</sub> interfaces by Auger Electron Spectroscopy, Rutherford Backscattering Spectrometry and X-ray Photoelectron Spectroscopy.  
Eighth Joint Symposium by North Texas Materials Characterization Society, Texas Chapter of the American Vacuum Society, and the North Texas Section of the Electrochemical Society, Dallas, June 5, 1989.
6. X-ray photoelectron study of Al-Mn alloys.  
Fourth International Conference on Electron Spectroscopy, University of Hawaii at Manoa, Honolulu, Hawaii, July 10-14, 1989.
7. SXAPS study of Al-Mn alloys.  
36th National Symposium of AVS, Boston, MA, Oct. 23-27, 1989.
8. Characterization of Low Pressure deposited Diamond Films.  
8th International Conference on Thin Films, San Diego, CA, April 2-6, 1990.
9. A study of Y-Ba-Cu-O on Si, SiO<sub>2</sub>, MgO, and W/Si by X-ray Photoelectron Spectroscopy.  
37th Symposium of American Vacuum Society, Toronto, Canada, Oct. 8-12, 1990.
10. Diamond and Amorphous Carbon Films.  
Fourth International Conference on Surface Modification Technologies, Paris, France, Nov. 6-8, 1990.
11. Angle Resolved X-ray Photoelectron Spectroscopy Study of CaF<sub>2</sub>/Si(111) Interfaces.  
American Physical Society, South Western Texas State University, San Marcos,

Texas, March 6-7, 1992.

12. Characterization of TiN/Si, TiN/SiO<sub>2</sub>, and W/TiN Interfaces.  
Twelfth Joint Symposium by North Texas Materials Characterization Society, Texas Chapter of the American Vacuum Society, and the North Texas Section of the Electrochemical Society, Austin, June 7-8, 1993.
13. X-ray photoelectron study of Co/Si interfaces.  
124th TMS Annual Meeting, Las Vegas, February 12-16, 1995.
14. Interdiffusion study of cobalt-silicon interfaces by X-ray Photoelectron Spectroscopy.  
American Physical Society, Sam Houston State University, Huntsville, Texas, March 2-4, 1995.
15. A study of Si-compounds by Zr La photoelectron spectroscopy.  
42nd National Symposium of American Vacuum Society, Minneapolis, MN, Oct. 16 - 20, 1995.
16. Electronic structure of RMn<sub>2</sub> compounds by Appearance Potential Spectroscopy.  
42nd National Symposium of American Vacuum Society, Minneapolis, MN, Oct. 16 - 20, 1995.
17. EXAFS studies of amorphous Ni-Ti thin films.  
American Physical Society, University of Texas at Arlington, Texas, October 10-12, 1996.
18. Study of CrN<sub>x</sub> Films by X-ray Photoelectron Spectroscopy  
Christi Emery and A. R. Chourasia  
Texas Sections of the AAPT, APS, and SPS,  
March 19-21, San Antonio, Texas
19. Electronic Structure Study of Amorphous and Crystalline Ti-Ni Films by X-ray Photoelectron Spectroscopy  
Lucian B. Holmes and A. R. Chourasia  
Texas Sections of the AAPT, APS, and SPS,  
March 19-21, San Antonio, Texas
20. The study of CrN<sub>x</sub> films by X-ray Photoelectron Spectroscopy  
Christi Emery and A. R. Chourasia  
5th annual A & M - Commerce Sigma Xi Student Research Forum,  
April 9, 1998
21. Electronic Structure study of amorphous and crystalline Ti-Ni films by X-ray Photoelectron Spectroscopy

Lucian B. Holmes and A. R. Chourasia  
5th annual A & M-Commerce Sigma Xi Student Research Forum, April 9, 1998

22. Reactive ion etching of BN and GaN using  $\text{Cl}_2/\text{Ar}$  and  $\text{BCl}_3/\text{Cl}_2/\text{Ar}$  plasmas  
N. Medelci, A. Tempez, E. Kim, N. Badi, D. Starikov, I. Berichev, and A. Bensaoula  
SVEC, University of Houston, Houston, TX  
A. R. Chourasia, A & M-Commerce.  
The Texas Surface Science Round Up  
May 27, Houston, Texas
23. Photoenhanced RIE of III-V Nitrides in  $\text{BCl}_3/\text{Cl}_2/\text{Ar}/\text{N}_2$  Plasmas  
N. Medelci, A. Tempez, E. Kim, O. Kameli, N. Badi, I. Berichev, D. Starikov, A. Bensaoula  
SVEC, University of Houston, Houston, TX  
A. R. Chourasia, A & M - Commerce  
45th American Vacuum Society International Symposium, Nov. 2-6, 1998, Baltimore, MD.
24. Soft x-ray appearance potential study of Rare Earth Manganese Compounds.  
A. R. Chourasia and S. D. Deshpande  
Fifteenth International Conference on the Application of Accelerators in Research and Industry, Nov. 4-7, 1998, Denton, Texas.
25. Design of a High Resolution XANES Monochromator.  
S. D. Deshpande, S. Prabhu, and A. R. Chourasia  
Fifteenth International Conference on the Application of Accelerators in Research and Industry, Nov. 4-7, 1998, Denton, Texas.
26. Unusual T-dependence of the spin wave stiffness in La-Ca Manganites  
J. J. Rhyne, H. Kaiser, J. F. Mitchell (Argonne National Lab.)  
And A. R. Chourasia  
American Physical Society Centennial Meeting, March 20 - 26, 1999, Atlanta, Ga
27. Electronic Structure Study of  $\text{CrN}_x$  Thin films  
K. D. Steed, S. J. Hood, C. Emery, and A. R. Chourasia  
American Physical Society Centennial Meeting, March 20 - 26, 1999, Atlanta, Ga
28. A Study of elemental Iron, Cobalt, and Nickel by Soft X-ray Appearance Potential Spectroscopy  
S. H. McKinney, J. A. Yancey, and A. R. Chourasia  
American Physical Society Centennial Meeting, March 20 - 26, 1999,

Atlanta, Ga

29. Investigation of the Electronic Structure of Lanthanum-Calcium-Manganese-Oxide  
S. Bae, S. J. Hood, and A. R. Chourasia  
American Physical Society Centennial Meeting, March 20 - 26, 1999,  
Atlanta, Ga
30. An algorithm to analyze Appearance Potential Spectrum  
Jeremy Yancey and A. R. Chourasia  
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce
31. APS study of Iron, Cobalt and Nickel  
S. H. Ryan McKinney and A. R. Chourasia  
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce
32. A study of La-Ca-Mn-O compounds by X-ray Photoelectron Spectroscopy  
S. Bae and A. R. Chourasia  
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce
28. AEAPS and XPS study of CrN thin films  
S. J. Hood and A. R. Chourasia  
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce
34. Determining Density of Conduction Band States from  
Appearance Potential Spectroscopy  
Jeremy A. Yancey and A. R. Chourasia  
Texas Section of American Physical Society, October 29 - 30, 1999, Austin, TX
35. Appearance Potential Spectroscopy Study of CrNx Thin Films  
A. R. Chourasia and S. J. Hood  
Quantitative Surface Analysis - 11, July 3 - 7, 2000,  
University of Surrey, Guildford, UK
36. Determination of thickness of deposited films using x-ray  
photoelectron spectra  
K. Steed and A. R. Chourasia  
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001
37. Importance of background in XPS spectra in estimating the density of  
states at the Fermi level  
M. Seabolt and A. R. Chourasia  
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001
38. Ti 2p AEAPS spectra in amorphous and crystalline Ti-50%Ni

compounds

S. McKinney and A. R. Chourasia

Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001

39. Estimation of density of states in Crystalline Titanium-Nickel Compounds using X-ray Photoelectron Spectroscopy  
M. A. Seabolt and A. R. Chourasia  
Joint Fall Meeting of the Texas Section of the American Physical Society, Texas Christian University, Fort Worth, Texas, October 6, 2001
40. Oxidation of Copper studied by X-ray Photoelectron Spectroscopy  
T. Jiang and A. R. Chourasia  
Joint Fall Meeting of the Texas Section of the American Physical Society, Texas Christian University, Fort Worth, Texas, October 6, 2001
41. A study of unoccupied density of states in  $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$  compounds by Auger electron appearance potential spectroscopy  
C. A. Watson, A. R. Chourasia, and J. F. Mitchell  
American Physical Society March Meeting, Indianapolis, IN, March 18-22, 2002
42. Background effects in the core level XPS spectra of Ti-Ni alloys  
M. A. Seabolt, A. R. Chourasia, and A. Ishida  
American Physical Society March Meeting, Indianapolis, IN, March 18-22, 2002
43. Electronic structure study of Ti-Ni amorphous and crystalline alloys by Auger electron appearance potential spectroscopy  
S. H. McKinney, A. R. Chourasia, and A. Ishida  
American Physical Society March Meeting, Indianapolis, IN, March 18-22, 2002
44. AEAPS Study of Ti-Ni Alloys  
S. H. McKinney and A. R. Chourasia  
Sigma Xi Research Symposium, April 11, 2002, A & M – Commerce.
45. Appearance Potential Spectroscopy study of Ti-Ni Alloys  
A. R. Chourasia, S. H. McKinney, C. A. Watson, and A. Ishida  
Invited Talk  
17<sup>th</sup> International Conference on the Application of Accelerators in Research and Industry, Denton, TX Nov. 12-16, 2002
46. Auger Parameter of Elemental Hafnium and Hafnium oxide

- R. Miller and A. R. Chourasia  
Texas Section of APS, Stephenville, TX, April 2-3, 2004
47. Oxidation of Hafnium as studied by X-ray Photoelectron Spectroscopy  
A. R. Chourasia and R. Miller  
Texas Section of APS, Stephen F. Austin State University, Nacagdoches, TX,  
March 3-5, 2005
  48. Auger parameter of aluminum  
R. L. Miller, S. H. McKinney, A. R. Chourasia, and G. A. Nixon  
Texas Section of APS, University of Houston, Houston, TX, Oct. 21-22, 2005.
  49. Auger parameter of aluminum  
R. Miller and A. R. Chourasia  
American Physical Society, Baltimore, MD, March, 2006
  50. Examination of oxidation of silicon using x-ray photoelectron spectroscopy  
A. R. Chourasia  
Ab Initio Modelling in Solid State Chemistry, Torino, Italy,  
Sep. 3-8, 2006
  51. Influence of Hamiltonian on the properties of NaCl  
Ryan Jacob and A. R. Chourasia  
Texas Section of American Physical Society, The University of Texas at  
Arlington, TX, Oct. 5-7, 2006
  52. Interaction of Hafnium oxide with Silicon  
Richard Miller and A. R. Chourasia  
Texas Section of American Physical Society, The University of Texas at  
Arlington, TX, Oct. 5-7, 2006
  53. Electronic Structure Calculations of Si, SiC, Si<sub>3</sub>N<sub>4</sub>, and SiO<sub>2</sub>.  
Ryan Jacob and A. R. Chourasia  
March Meeting of the American Physical Society, Denver, CO, March 3-9,  
2007
  54. Study of Oxidation of silicon by X-ray Photoelectron Spectroscopy  
W. Johnston, Ryan Jacob, and A. R. Chourasia  
March Meeting of the American Physical Society, Denver, CO, March 3-9,  
2007
  55. Appearance potential Study of Ti-Ni Alloys  
S. H. McKinney and A. R. Chourasia  
March Meeting of the American Physical Society, Denver, CO, March 3-9,



2007

56. Interaction between silicon and thin films of hafnium oxide  
John Hickman, Steven McDonough, and A. R. Chourasia  
Texas Section of American Physical Society, Oct. 18-20, 2007, College Station, TX
57. Oxidation of Hafnium studied by X-ray Photoelectron Spectroscopy  
John Hickman, R. L. Miller, G. A. Nixon, M. A. Seabolt, and  
A. R. Chourasia  
March Meeting of American Physical Society, New Orleans, LA,  
March 10-14, 2008
58. Density of States of Silicon, Silicon Oxide, Silicon Nitride and  
Silicon Carbide  
Hong Dong and A. R. Chourasia  
March Meeting of American Physical Society, New Orleans, LA,  
March 10-14, 2008
59. Partial Density of States of Silicon in Silicon Compounds  
A. R. Chourasia  
MSSC2008, Imperial College, London, Sep. 15-19, 2008.
60. Electronic Structure of Aluminum Compounds  
Hong Dong and A. R. Chourasia,  
American Physical Society, Pittsburgh, PA, March 2009
61. Study of oxidation of titanium by X-ray photoelectron  
Spectroscopy  
A. R. Chourasia and Hong Dong  
American Physical Society, Pittsburgh, PA, March 2009