MAR05-2004-005253

Abstract for an Invited Paper for the MAR05 Meeting of the American Physical Society

Doing Physics With Third World Collaborators¹

STEVEN T. MANSON, Georgia State University

For more than a decade now we have been in collaborative projects with scientists from the Third World, specifically India, Turkey and Uzbekistan. Collaborations with Third World physicists bring their own unique problems and rewards. Third World scientists are no less talented than those in the West; they do, however, lack facilities, opportunities and funding. Collaboration of these Third World scientists and their Western counterparts can go a long way towards ameliorating these difficulties in a variety of ways. Some of the problems, unique to Third World collaborations, will be discussed. Furthermore, funding aimed specifically at supporting such collaborations is available from a variety of sources; some details of funding opportunities will also be presented. As a result of our collaborations, a variety of research projects involving theoretical studies of photoabsorption by free and confined atoms and ions are ongoing and have resulted in a significant quantity of publications; a representative sample of the research results over the years [1-6] will also be discussed. [1] E. W. B. Dias, H. S. Chakraborty, P. C. Deshmukh, S. T. Manson, O. Hemmers, P. Glans, D. L. Hansen, H. Wang, S. B. Whitfield, D. W. Lindle, R. Wehlitz, J. C. Levin, I. A. Sellin and R. C. C. Perera, Phys. Rev. Lett. 78, 4553 (1997). [2] Z. Altun and S. T. Manson, Phys. Rev. A 59, 3576 (1999). [3] V. K. Dolmatov and S. T. Manson, Phys. Rev. Lett. 83, 939 (1999). [4] H. S. Chakraborty, A. Gray, J. T. Costello, P. C. Deshmukh, G. N. Haque, E. T. Kennedy, S. T. Manson and J.-P. Mosnier, Phys. Rev. Lett. 83, 2151 (1999). [5] H. Wang, G. Snell, O. Hemmers. M. M. Sant'Anna, I. Sellin, N. Berrah, D. W. Lindle, P. C. Deshmukh, N. Haque and S. T. Manson, Phys. Rev. Lett. 87, 123004 (2001). [6] A. Baltenkov, V. Dolmatov, S. Manson and A. Msezane, Chem. Phys. Letters 378, 71 (2003).

¹Collaborations supported by NSF and the Civilian Research and Development Foundation (CRDF).