

Dr.A.K.Tyagi

- 1. Age** 51 years
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- 5. Educational Qualifications** M.Sc (Physics) Meerut University, Meerut, India
M.Tech.(Solid State Materials) IIT Delhi, India
Ph.D. (Physics) IIT Delhi, India
- 6. Present Responsibilities** Head, Surface Science Group
- 7. Specialization** Surface Science and Engineering
- 8. Areas of Research** Thin Films, Diffusion,Ion Implantation,Nanomaterials
- 9. Current Interests** Nanostructures, Multilayers, Coatings, Sensors
- 10. Experimental Facilities** Surface Analysis (SIMS,XPS,AES,SEM,STM/AFM,SNOM with Raman and PL), Thermal Analysis (DSC, DTA,TGA, EGA), Thin film deposition (Sputtering, EB-PVD, Laser ablation, CVD methods), Spectroscopy (Raman, PL, FT-IR, Ellipsometry), PE-CVD,PIII, Nanoindentation, Scratch Tester, Chemical and template methods for nanomaterials
- 11. General** Professor at Homi Bhabha National Institute. Leading Nanoscience and Nanotechnology activities at IGCAR, kalpakkam. Guest scientist at Hahn-Meitner-Institute, Germany (1988-1989), Visiting faculty position at Forschungszentrum, Germany (1997-2000).Advisory board member for Nanoscience Centre at Madras University and Satyabhama University, Chennai.Over 125 refereed research publications in International Journals.

12. Five relevant publications in last five years

- 1.Synthesis and characterization of nanocrystalline Cr_2O_3 and ZrO_2 ceramic materials, **A.K. Tyagi**, G.Mangamma, M.Kamruddin, S.Dash and Baldev Raj, Journal of Nanoscience and Nanotechnology 7 (2007) 2005
- 2.Synthesis, characterization and assembly of B-In₂S₃ nanoparticlesB.Vigneashwari, S.Dash, **A.K.Tyagi**, P. Parameswaran, V. Ravichandran and S. Austin Sunthathiraraj, Journal of Nanoscience and Nanotechnology 7 (2007) 2087
3. Laser Surface Modification and characterization of Air Plasma Sprayed Alumina Coatings, R. Krishnan, S. Dash, R. Kesavamoorthy, C. Babu Rao, **A. K. Tyagi** and Baldev Raj, Surface and Coatings technology, 200 (2006) 2791.

4. On the role of oxygen in the catalysis of C_{54} titanium disilicide by Ti_5Si_3 phase, S. Ilango, G. Raghavan, S. Klavathy, B.K. Panigrahi and **A.K. Tyagi**, Journal of Applied Physics 98. (2005) 1.

5. A comparative study of contact resonance imaging using atomic force microscopy, S. Banerjee, N. Gayathri, S. Dash, **A.K. Tyagi** and Baldev Raj, Applied Physics Letters, 86 (2005) 211913.