

Brief introduction to Dr. Ubhi Singh

After finishing school, went to Leeds University, to read Metallurgy.

After graduation, was awarded a Leeds University scholarship for post graduate study again in metallurgy conducting research on Mechanically Alloyed ODS Ferritic Fe Cr Alloy, characterising the development of microstructure in this alloy from the starting powders, mechanical alloying, extrusion and hot rolling, using techniques such as optical, TEM, SEM microscopy, X-Ray diffraction and textures.

Following successful completion for the degree of PhD, he did post graduate work at Strathclyde University, on microalloyed steels using electrical resistivity measurements combined with TEM to study the precipitation behaviour of carbides. Work was also done on WDS and EDS comparisons for quantification of trace elements, and in-situ laser surface treatments of Ti titanium and titanium alloys.

He then moved to Nairobi University as a Lecturer teaching Materials Science in the Mechanical Engineering Department. After two years in Nairobi, he came back to the UK, and work for a short period at British Steel, Swindon Labs now owned by Tata Steel, studying strengthening mechanisms in tyre rod steels using mainly TEM.

Following the short stay at British Steel, he moved to Royal Aerospace Establishment, Farnborough, now QinetiQ, and worked there for about 17yrs, starting as a Higher Scientific Officer and progressed to Principle Scientific Officer. Over this period, he worked at developing excellence in EBSD characterisation using the earliest commercial EBSD apparatus. Through this development, he gained experience in various materials ranging from aluminium, titanium, steel, nickel super alloys, both unirradiated and irradiated zircaloy, un-irradiated nuclear fuel, in-situ laser surface treated Ti and Al, paints, NiTi shape memory alloys for applications in aero structures, aero engines, tribology, batteries, paints, failure analysis etc. Considerable work was also done using TEM X-Ray diffraction and textures. Was instrumental in showing the advantages of EBSD for texture quantification in Zircaloy instead of XRD.

For the past four years he has been at Oxford Instruments as a Senior EBSD Applications Scientist.