KALIN DRAGNEVSKI

KEY QUALIFICATIONS & SKILLS: PhD in Materials Science, MSc(Eng) in Materials Science, Certificate in Management; Good knowledge and user of Advanced Processing & Characterisation techniques; Excellent communication, negotiation, project, time & man management skills.

PROFESSIONAL WORK EXPERIENCE

2008 – present **Experimental Programme Technical Manager, University Technology Centre, Department of Engineering Science, University of Oxford**

For details of my current research and other activities, please see the Solid Mechanics & Materials Engineering Group website: www.eng.ox.ac.uk/solidmech

2005 – 2008 **Research Associate, Department of Physics, University of Cambridge**

My project, funded by ICI, aimed to explore and further develop the use of ESEM, EDX & FIIB in the study of the film formation & failure mechanisms of novel polymer latices and polymer composites. The main outcomes of my work include:

- Development & optimisation of protocols for ESEM examination of wet specimens;
- Characterisation of a variety of specimens including a novel latex used for the production of environmentally friendly architectural coatings;
- Design & development of a new tensile stage for *in-situ* examination of superelastic specimens;
- Successful publication of *8* research papers (*additional 2 currently in preparation*);
- Presentation of research on *8* domestic and international conferences (*2 invited*);
- Established successful collaborations with members from other Academic Departments.

2003 – 2005 **Process Development Engineer, Permastore Ltd.**

The main aspects of my work for the leading manufacturer of enamelled steel included:

- Leading the EPSRC research collaboration with the University of Leeds which was aimed at the development & characterisation (SEM, EDX, TEM) of novel enamels;
- Investigation of defects and analysis of failed components using Optical Microscopy, SEM & Mechanical testing;
- Maintaining laboratory facilities & negotiating service contracts;
- Interaction with internal departments, suppliers & customers with the aim of identifying key performance indicators for further process optimisation;

Key outcomes:

- Introduction of new technology (*£250,000*);
- Reduction in reject rates by *9.43%* & increase in productivity by *6.21%*;
- Overall increase of the company's turnover by approximately *£1,100,000*.

1999 – 2002 **Teaching Assistant, Department of Materials, University of Leeds**

I taught undergraduate students key Materials Science subjects, including Crystallography & X-ray Diffraction, Microscopy, Solidification & Heat Treatment. Main duties included:

- Preparing lectures and course materials;
- Setting up and demonstrating laboratory classes;
- Advising and training students in writing reports;
- Supervising final year students.

EDUCATION

1999 – 2002 **PhD in Materials Science, Department of Materials, University of Leeds**

My project involved the design & development of a high vacuum system with a built-in furnace that was used to undercool samples below their melting temperatures. The structure-property relationship of the specimens was examined by means of Optical Microscopy, SEM, EDX, TEM, XRD and mechanical testing. The key outcomes of my research project include:

- Discovery of a new type of microstructure (*split dendrites*);
- Recorded the fastest growing dendrite (*156m/s*);
- Observation of fcc growth in the *<111>* rather the theoretically expected *<100>* crystallographic direction;
- Successful publication of *7* research papers;
- Presentation of research studies on *4* domestic and international conferences.

1992 – 1999 **MSc(Eng) in Materials Science & Engineering, University of Chemical Technology and Metallurgy, Sofia, Bulgaria**

Overall result of the course of studies Excellent 5.64 (equivalent to first class degree);
Overall result of the final year project Excellent 5.75 (equivalent to first class degree).

ACHIEVEMNETS & OTHER PROFESSIONAL QUALIFICATIONS

- Certificate in Management, University of Cambridge (*nationally recognised certificate, accredited by the Institute of Leadership and Management*);
- FEI Travel award for best applied study, ESEM VIII, Neuchatel, Switzerland, 2007;
- First prize for best applied study, National Lecture Competition of the Institute of Materials (*local heat*), Leeds, England, 2002;
- Second prize for best theoretical and applied study, Bulgarian Academy of Sciences, Sofia, Bulgaria, 1999;
- Member of the Institute of Materials (*ProfGradIMMM*);
- Member of the Panel of Reviewers for the Journal of Microscopy, Journal of Colloid & Interface Science and Journal of Physics (EMAG Conference Series).

SKILLS & INTERESTS

Professional: Good knowledge and user of Electron Microscopy techniques; Experience in the design, development & modification of vacuum systems; Excellent communication, negotiation, time, project and man management skills; Experience in financial management & preparation of proposals for funding; Ability to work under own initiative and as part of a team; Ability to interpret and present scientific data.

Computing & Languages: Extensive user of MS Office and different software for digital imaging and process monitoring; Fluent in Russian and Bulgarian (*Mother tongue*).

Professional Interests: Materials characterisation using advanced Electron Microscopy techniques, EDX), dynamic studies in the (E)SEM and applications of EDX in (E)SEM mode.

Other Interests: Collect pens and study the history of writing; enjoy travelling, reading novels and listening to the music; regularly enjoy long walks and play table tennis.