Request and Information for Prospective Euratom Bid Partners

Dr. Paul A. Bingham PhD, BEng(Hons), FSGT, FHEA

Senior Lecturer in Materials Engineering, Materials and Engineering Research Institute, Faculty of Arts, Computing, Engineering and Sciences, Sheffield Hallam University, City Campus, Howard Street, Sheffield S1 1WB, UK

Email p.a.bingham@shu.ac.uk

Euratom Partner Search

I am interested in exploring opportunities to join consortia for the current round of Euratom calls, specifically NFRP-(01, 04, 05, 06, 07, 10, 14)-2014.

Personal Summary

I have a passionate interest in developing solutions to real-world problems and particularly those posed by radioactive waste treatment and storage, future energy supply and environmental remediation. My interests include the following fields:

- Development, processing and long-term performance of radioactive waste immobilisation materials
- Composition / structure / property relations in materials relevant to the nuclear fuel cycle

Expertise

A significant part of my work to date has been the development of novel glass, glass-ceramic and glass-composite materials for immobilising nuclear and toxic wastes, making site remediation safer and more affordable. I have published many papers in this field covering aspects of compositional development of host matrices for HLW, ILW and PuO_2 wastes and also waste processing; long-term performance in simulated geological repository conditions; and immobilisation of problematic waste species. Examples of my work include: (1) Novel glasses for the safe vitrification of radioactive wastes arising from decommissioning of the Hinkley Point 'A' nuclear power station. A number of glasses meeting the strict specifications of the Nuclear Decommissioning Authority (NDA) were developed and pilot-scale demonstrations using these materials were successfully undertaken; (2) I developed new glasses for safely immobilising radioactive wastes rich in certain problematic species including sulphur and chlorine which are difficult to incorporate in existing hosts. The new materials provide versatile immobilisation hosts; (3) I was part of the team that has been involved in developing and applying advanced accelerated testing of glassy wasteforms under simulated geological repository conditions.

Track Record

I have carried out R&D and consultancy in both academic and industrial environments. I have published 1 book (as co-Editor); 1 book chapter; and over 60 publications in peer-reviewed refereed journals, conference proceedings, trade journal articles and reports. My current Scopus *h*-index is 13 and my ResearchGate RG Score is 27.31, in the top 17.5%. I have been Principal Investigator or Co-Investigator on research income from sources as diverse as the EU, Technology Strategy Board, EPSRC, US Dept. of Energy, National Nuclear Laboratory, Carbon Trust, Magnox Electric Ltd, Serco Assurance Ltd and Sellafield Ltd., and I have previously consulted for the UK Government's Committee on Climate Change. I also have a proven track record in obtaining access to synchrotron (UK, USA, France, Germany, Italy) and neutron (UK) facilities.

Selected References

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