

POSTER SESSION

Partitioning

Chair: M.J. Hudson (University of Reading)

SUMMARY

Amongst the developments within the poster presentations there was a high degree of novelty and innovation. In all, there were twelve interesting poster presentations – the list for which is given elsewhere. All of the presentations were of a high standard and the authors are to be congratulated for the hard work that they put into the presentations. The paper by Suarez *et al.*, for example, indicated that selenium and zirconium isotopes remained in the raffinate within the PUREX process. Caravaca *et al.* showed that within electrochemical processes in pyrochemical systems, when LiCl/KCl is used as the electrolyte, the nucleation and crystal growth of the rare earth metal seems to be the controlling step for deposition. Following the success of recent European Projects, which studied amides, Almaraz *et al.* have managed to bind malondiamides onto calix[6]arenes which may have potential as solvent extraction reagents. Using hollow fibre techniques, Geist *et al.* showed that over ninety per cent of americium might be extracted from the feed phase when nPr-BTP is used as an extractant. The kinetics of the extraction seemed to be rather slow. Dicarbolid studies are also continuing and Plesek *et al.* showed that COSAN might be used for the separation of isotopes of strontium and actinides. The influence of intermediate chemical processing of nuclear fuel has been studied by Gerasimov *et al.* The extent of burn up increased with the amount of enrichment. Song *et al.* discussed the developments that have been taking place at Tsinghua University. They produced a flow sheet for the total partition process for commercial HLLW, which was the focus of much attention.

The paper by Gruettner *et al.* indicated that nanotechnology should be considered more seriously for the selective complexation of radionuclides. Especial importance must be directed in the future the great potential that nanoparticles and nanostructured materials may have in the future. Thus the particles themselves, or the functional groups on the surface may be used to interact with radionuclides.