

ACTINET :

a European Network for Actinide Sciences

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The research in Actinide sciences appear as a strategic issue for the future of nuclear systems. Sustainability issues are clearly in connection with the way actinide elements are managed (either addressing saving natural resource, or decreasing the radiotoxicity of the waste...).

The recent developments in the field of minor actinide P&T offer convincing indications of what could be possible options, possible future processes for the selective recovery of minor actinides. But they point out, too, some lacks in the basic understanding of key-issues (such as for instance the control An versus Ln selectivity, or solvation phenomena in organic phases). Such lacks could be real obstacles for an optimization of future processes, with new fuel compounds and facing new recycling strategies. This is why a large and sustainable work appears necessary, here in the field of basic actinide separative chemistry.

And similar examples could be taken from other aspects of An science, for various applications (nuclear fuel or transmutation targets design, or migration issues,): future developments need a strong, enlarged, scientific basis!

The Network ACTINET, established with the support of the European Commission, has the following objectives:

- significantly improve the accessibility of the major actinide facilities to the European scientific community, and form a set of pooled facilities, as the corner-stone of a progressive integration process,
- improve mobility between the member organisations, in particular between Academic Institutions and National Laboratories holding the pooled facilities,
- merge part of the research programs conducted by the member institutions, and optimise the research programs and infrastructure policy via joint management procedures,
- strengthen European excellence through a selection process of joint proposals, and reduce the fragmentation of the community by putting critical mass of resources and expertise on shared challenges.

ACTINET is today a Consortium gathering twenty six institutions from fourteen European countries, plus ITU (JRC).

The members of the network range from large national laboratories to university departments, thus bringing at the same time major experimental facilities (which can be seen as a set of "pooled facilities"), training experience, academic and applied research capacities, within the broad area of actinide sciences.

The network was launched march, 2004; after 3 "calls for proposals", about 40 research actions have been approved by a scientific committee and funded by the network.