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The Strategy of Closed Nuclear Fuel Cycle based on Fast Reactor and Its Back-end R&D Activities

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To develop nuclear energy is inevitable choice for China to meet the requirement of decreasing greenhouse gas emission, at the same time of economic and society development. To ensure sustainable development of nuclear energy, closed nuclear fuel cycle strategy based on fast reactor has to be adopted. Both of recent and next R&D activities of nuclear fuel cycle back-end were introduced in the paper, such as:

- Nuclear energy development and spent fuel accumulation, including fast reactor and ADS development aiming at transmutation long-lived nuclides.
- Commissioning of Reprocessing Pilot Plant for PWR spent fuel, development of advanced PUREX process and hot test of separation both U and Pu in CRARL (China reprocessing and radiochemistry laboratory).
- Minor Actinides separation on laboratory scale.
- Investigation on vitrification of high-level liquid waste, high level waste disposal and its programme.

Do you wish to enter the YGE SFM19 Challenge?

Country or International Organization

China

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