

(V)HTR scientific-technical development – Chinese-German dialogue?

Since many years **SiCeram GmbH Jena/Germany** together with **Technische Universitaet Dresden/Germany** is engaged in two fields of nuclear R&D, which could be of interest for the future Chinese (V)HTR projects:

1. Innovative full-ceramic SSiC encapsulated fuel elements

for the pebble bed reactor

goals: **accident-tolerant fuel**, which is from the very beginning also

pre-conditioned for the final disposal,

with focus on

- **high operating temperatures (> 1000 °C, hydrogen production!)**

- **low manufacturing costs**

- **Safeguards proof**

Additionally, these new fuel elements open new perspectives for floating units for desalination.

2. Full-ceramic, multibarrier TRIPLE C® waste package for disposal of radionuclides and other hazardous materials in crystalline, clay or salt host rock

This technology is applicable for **all types of spent nuclear fuel elements** (PWR, BWR, CANDU, **PBMR**...).

On its own territory China has the ruling authority. But as soon China tries to export nuclear facilities, it will be confronted with questions concerning **safety, price, Safeguards, waste management**.....

To see some of our basic proposals please visit www.ceramics-for-nuclear.info.

For more recent developments please contact directly Dr. Albert Kerber, Managing Director SiCeram GmbH: a.kerber@jsj.de

We are looking for your response.

J. Knorr Dresden, April 2017