

LAYER REMOVAL FROM TRISO-COATED PARTICLES WITH A COLD PLASMA

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Generation IV nuclear reactors generally use small spherical UO_2 particles that are coated with a multitude of layers including graphite and SiC. These particles are called TRISO-particles. During the manufacturing process some of the particles are scrapped because of defective layer formation or layer densities and are therefore outside the prescribed specifications. In order to recover the uranium contained inside such particles, a process was developed where the carbon and SiC layers was removed by oxidizing and etching it in a non-thermal plasma.

