

**Poster E3**

## **Design of a Supercritical Reactor for Nuclear Waste Treatment**

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Supercritical Water Oxidation (SCWO) has been identified as a good candidate for nuclear waste treatment by ONET Technologies (OT). Corrosion and plugging inside the reactor where the reaction takes place are the two principal obstacles, limiting the industrial applications of this technique. OT has designed an industrial SCWO reactor pilot capable of treating solid and liquid waste. In this *poster* we describe the specific reactor configuration and the different conditions to treat sludge, organic effluents, ion exchange resins, or milled/crushed waste. The detailed system components, principal properties, advanced control methods and first experimental results of the pilot scale plant are described.