**Fluidized Bed Reactor**

**Equipment:** Fluidized bed reactor

**No. of Equipment: UJEP2**

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**Equipment Description**

**Description of equipment:**

Equipment for plasma treatment of powder materials

Analytical equipment for surface analysis. - Secondary

Specifications and technical features:

Lower amounts of powder treatable (it is research reactor) – at the moment hundreds of mg to units g. The reactor is being developed to increase the capacity.

Working gases: Ar, O2, H2, N2, …

Working gas pressure: hundreds of Pa

RF Power: up to 200W

**Specification of expertise relevant to NanoEnviCz workpackages:**

**WP3**a,g, **WP4**a,c, **WP5**a, **WP6**a-e, **WP7**a,d,

**Detailed description of expertise**

**Please, specify the main research topics connected with equipment**:

Plasma treatment of powder materials

Any material in powder form can be plasma treated in the reactor. Until now, polymer powders (PE, PP) for oxygen containing groups creation and montmorilonite powder (catalysis, biomediacal applications) were investigated.

**Keywords describing research area:**

Plasma treatment of powders

**Competence**

**Relevance for applied and industrial research:**

Suitable as testing plant for powder treatment.

**Relevance for fundamental studies:**

Investigation of new powder materials