**Disc Centrifuge**

**Equipment:** Disková centrifuga (CPS 24000UHR)- Disc Centrifuge

**No. of Equipment:** **TUL 5**

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**Equipment Description**

**Description of equipment:**

The CPS Disc Centrifuge is a particle size analyzer for measuring particles in the range

of 0.01 micron to 40 microns. The system is most effective with particles between 0.02

and 30 microns. The analyzer measures particle size distributions using centrifugal

sedimentation within an optically clear spinning disc that is filled with fluid.

Sedimentation is stabilized by a density gradient within the fluid, and accuracy of

measured sizes is insured through the use of a known size calibration standard before

each test.

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

**WP3**a,f,h, **WP4**a,b, **WP5**c, **WP6** a, **WP7**a-d,h, **WP9**a,b,f

**Detailed description of expertise**

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

Change of particle distribution in time/after treatment.

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

Correlation between the particle size and toxicity.

**Keywords describing research area:**

Nanomaterials; CPS; Stabilization; Toxicity;

**Competence**

**Relevance for applied and industrial research:**

Measurements of the rate of nanomaterial agglomeration is relevant for applied and industrial research

**Relevance for fundamental studies:**

Measurements of the rate of nanomaterial agglomeration and correlation between the particle size and toxicity is also relevant for fundamental studies.