Inventory of experimental and theoretical resources available for NanoSpace COST Action	
Country:	Latvia
Name of Institution/Laboratory:	**Ventspils University of Applied Sciences** Engineering Research Institute "Ventspils International Radio Astronomy Centre"
Contact information (name, e-mail):	Juris Kalvāns juris.kalvans@venta.lv
Website:	https://en.venta.lv https://www.virac.eu
Short description **(max 0.5 page)** of available techniques (experiment or theory): If appropriate, please include 1 picture/figure and caption highlighting resources.	Numerical code describing the cooling down of an icy interstellar grain from a high initial temperature to ambient grain temperature, which typically is around 10 K. Considers spherical grains with a resolution of 1 monolayer. Each monolayer may consist of several species. Includes the major processes that are important to cooling of a grain heated to tens of K: sublimation, which induces evaporative cooling, molecular diffusion of volatile species between the icy layers, and radiative cooling. Latest iterations consider several volatiles, each having unique heat capacity. Recent applications include obtaining temperature cooling curves and evaporation yields from the icy mantles of interstellar grains suddenly heated by cosmic rays or other phenomena and as a helping tool for estimating the lifetime of tiny (nm-sized) icy grains in the interstellar medium.
Sample/target description (e.g. gas, clusters, solid,…):	Sub-micron icy grains
How to access to experimental/computational resources (e.g. through collaboration, user facility proposal calls,….):	Personal request
References **(max 5)**:	Kalvāns, J., Kalnin, J. R. "Evaporative cooling of icy interstellar grains I. Basic characterization", 2020, *Astronomy & Astrophysics*, **633**, A97 Kalvāns, J., Kalnin, J. R. "Evaporative cooling of icy interstellar grains II. Key parameters", 2020, *Astronomy & Astrophysics*, **641**, A97