Nano-powder and solution routes

| | Organiser | Institution | Contact |
|--|-------------------|--|----------------------------------|
| | Bruno Trindade | Nanomaterials and Micromanufacturing, Center of Mechanical Engineering of Coimbra University, Coimbra Portugal | bruno.trindade@dem.uc.pt |
| | Olivera Milosevic | Institute of Technical Sciences of the Serbian Academy of Sciences and Arts Serbia | olivera.milosevic@itn.sanu.ac.rs |

Summary

C3.I

The field of nanoscience and nanotechnology has tremendously exciting progress in recent years, particularly regarding the control synthesis of nanoscaled materials that might have a great potential for use in functional materials and devices, like semiconductors, functional optical materials, sensors, catalysts, cell materials, biomaterials, drug delivery carriers, etc. The key points important for the future research and development of advanced materials represent the ability for further improvement of material properties through nanostructuring in order to address the increased seek for new and improved functionalities. Moreover, the development of assigned and controlled powder processing routes with the ability to ensure nanophase synthesis in a controlled manner can contribute greatly to the new manufacturing processes and influence in revolutionizing the paths for nano materials development. This Symposium aims to present the state-of-the-art and the potentials of advanced techniques and methods for powder processing and will be focus on the creation of environment-friendly powders through thefollowing main topics:

- Soft chemistry routes for nanoparticles processing and their functionalization
- Mesoporous powders processing
- o Mechanochemistry, mechanical attrition, mechanical friction in powderprocessing
- Powder processing under extreme conditions
- Creation of multifunctional powders
- o Electrochemical processing