

### **Work visit**

Held on April 12<sup>th</sup> at SC SINTEZA Oradea SA, in order to perform practical measurement tests regarding the nano-micro particle emissions in the area, using the Air particle counter P311, purchased from the project funds. On this occasion, Dr. Mihai LUNGU presented the equipment and the functioning principle of measurement of suspended particles concentration in the ranges of 0.3 – 2.5µm, 2.5-5µm and larger than 5µm, then he performed a set of measurements in the area of SC SINTEZA SA. The general manager of SINTEZA SA Oradea, Eng. Catalin MARIAS, explained the technological processes implied in the obtaining of benzoic and salicylic acids, the packaging of these powdery products, and the necessity of limiting the emissions of these fine powders from the point of view of environment protection and the reduction of production losses, and the general manager of SC PRO AIR CLEAN ECOLOGIC SA Timisoara, Dr. Eng. Nicolae STRAMBEANU presented a communication named “Study on Nanoparticulates Flow Reduction Tests to HWI Plants Using Numerical Simulation”, authors Lungu Mihai, Neculae Adrian, Lungu Antoanetta, Demetrovici Laurentiu, proposed for publication, based on continuous measurements (5 years) of particle emission on the chimney of the PRO AIR CLEAN ECOLOGIC incinerator in Timisoara and the emissions in its vicinity, respectively.

### **Round tables**

Focused on subjects related to the atmosphere pollution with nano-micro particles in suspension, problems included in the action plan for environment in the west region of Romania, PLAM.

- First was held on May 13<sup>th</sup>, at the headquarters of Pro Air Clean Ecologic Timisoara. At this event participated:
  - SC PRO AIR CLEAN SA Stejaru, Ialomita county, having object of activity the incineration of dangerous wastes, represented by lawyer director Marius BUZEA and the chief of technical service, Eugen POPA,
  - SC VIVANI SA Slobozia, having object of activity the incineration of municipal and special wastes (electroplating sludge, slag powders, etc) represented by director Eng. Steluta COMAN
  - SC FARKAS TRANS ROMANIA SA Bucuresti, having object of activity the transport of special bulk wastes, represented by director Ion TRUSCA,
  - SC RO-ECOLOGIC SA Fieni, Dambovitza county, having object of activity the co-incineration of special wastes in cement kilns, represented by Eng. Orlando BANICA,
  - SC SEPTOX ROMANIA SRL Targu-Mures, having object of activity the management and preparation of industrial wastes for the co-incineration in cement kilns, represented by director Eng. Jenö IMREH,
  - SC SINTEZA SA Oradea, having as object of activity the production of powder benzoic acid and of others intermediate chemical products, represented by general manager Eng. Catalin MARIAS,
  - The Institute of Energetic Studies - ISPE Bucuresti, Timisoara Branch, specialized in (among others) the design of heaps of slag and ash from the neighbourhood of power plants, represented by director Eng. Laurentiu MAIER,
  - INCD ECOIND Bucuresti, institute specialized in studies and measurements of environment factors, represented by director dr. Eng. Luoana PASCU,
  - GREENTECH Brasov, a cluster of nineteen firms, institutions and companies from Romania producing material goods, research institutes, consulting and design firms acting for the promotion of the production technologies tending to the “zero emissions” desideratum, represented by its president, Eng. Petru BARZAN,
  - SC AZUR S.A. Timisoara, represented by Eng. Anisoara BEJINARU,
  - OILFEST SRL Timisoara, represented by director Eng. Mihai BORCEANU.

The project manager Dr. Mihai Lungu started with the presentation of the project, its objectives and the results achieved in the frame of this project. Then, the general manager of PRO AIR CLEAN ECOLOGIC Timisoara, and project member also, Dr. Eng. Nicolae Strambeanu presented the book entitled “Nanoparticles’ Promises and Risks”, published in the frame of the project in 2015 at Springer Publisher.

The director of ISPE – Timisoara Branch pointed out the significance of performing a study on nanoparticle emissions due to the drifting of ashes from dumps of power plants or other highly toxic powder wastes. Also, the representative of Greentech Brasov cluster spoke about the importance of orientation to those industrial process that promote the total recovery/recycling of sub products/wastes, in order to limit the CO<sub>2</sub> emissions, and of nanoparticles as well. The representatives of Septox, RO-Ecologic and Vivani appreciated the high level of the meeting and also the significance of presented information, results and practical demonstration performed in front of the audience, emphasizing the importance of the project. They also declared that, in short time, they will appeal to the work team of the project for performing measurements on nanoparticle concentration in the perimeters in which they operate.

- The second was held on September 7<sup>th</sup>, at the Physics Faculty. At this event participated local public policy makers in order to inform them of project outcomes and to identify their position on the issue of emission of nano-micro particles in the atmosphere, as following:
  - Mrs. Counselor Doina MARIN from APM Timisoara,
  - Mrs. Commisar Dana MARIN din cadrul GNM Timis,
  - Mrs. Fistiş GABRIELA, director of Denkstatt Romania,
  - Eng. Andres LADISLAU, coordinator of INCD ECOIND Timisoara branch,
  - Eng. Laurentiu Florin MAIER, chief of ISPE Timisoara branch,
  - Eng. Mihai BORCEANU director of OILFEST SRL Timisoara,
  - Eng. Anisoara BEJINARU, from AZUR SA Timisoara,
  - Eng. Catalin MARIAS, director of SINTEZA Oradea.

The project member Antoanetta Lungu presented the maps of nanoparticle emissions in Timisoara, obtained by more than 250 measurements in years 2015 and 2016 in different points of interest from the point of view of nanoparticle emissions, represented the base of discussions that resulted new directions for the action plan for environment in west region of Romania, PLAM. During the discussions that followed, the coordinator of INCD ECOIND Timisoara branch, chief of ISPE Timisoara branch, and the director of OILFEST were interested in the costs of the measurement equipment and the corresponding costs of the measurement process, respectively.