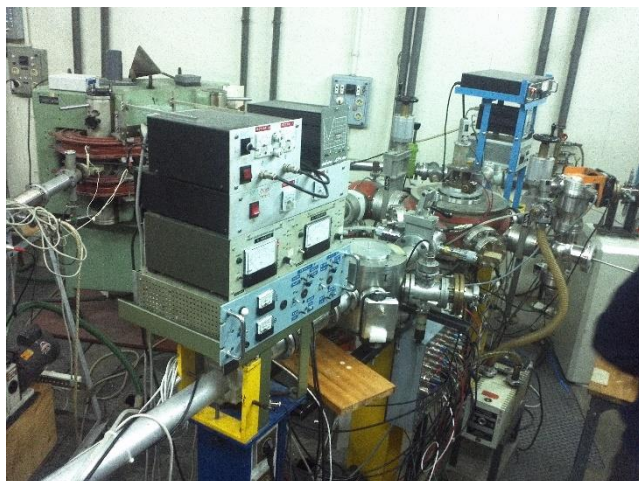


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From the 20th till the 24th of February 2023, we were taking part in the Erasmus + Staff mobility for the training program, which took place in the Instituto Superior Tecnico, Laboratotoio de Aceleradores e Tecnologias de Radiacao. Under the supervision of Dr. Eduardo Alves training in the field of conducting RBS/C measurements took place. The training measurements of RBS/C were conducted on multi-quantum and superlattice structures based on ZnO and its alloys. All samples were prepared in the Institute of Physics of the Polish



Academy of Sciences with the MBE growth technique and included ZnMgO/ZnO multi-quantum wells with widths from a few to tens of nanometers, quaternary alloys in form of short-period ZnO/MgO bilayers. All the goals included in the training plan were fulfilled, which means that safety procedures training and lab tour were carried out, which resulted in obtaining clearance to access the main RBS lab and the laboratories for sample preparation. The next day we have been introduced to sample preparation, mounting, and preparing the whole measuring setup and software and acquisition procedures. The first supervised measurements were conducted utilizing a simplified setup, which means a two-axis goniometer to control the sample in the ion beam analysis (IBA) chamber. The next days were dedicated to measurements of more complex samples with the utilization of a more sophisticated three-axis goniometer, and more advanced techniques such as RBS channeling and angular scans for main and off normal crystalline channels. The following days were occupied with the introduction to the ion implantation technique at a room and elevated temperatures. The last day was dedicated to training in acquired data analysis with proper specific software. Preliminary results analysis gives hope for further cooperation in the field of publications and conference presentations. The gained experience allowed for the development of unique skills and knowledge in the field of utilization of versatile RBS techniques.