

SEMINARIUM RENTGENOWSKIE

Dnia 23.10.2018 r. o godz. 10.30, w sali D Instytutu Fizyki PAN, odbędzie się seminarium rentgenowskie na którym **dr Damian Paliwoda** z SL-1.3, IF PAN, wygłosi referat na temat:

"Matter at Extremes: Towards New Functional Materials Synthesized at High Pressure"

Summary:

Pressure is one of thermodynamic parameters that effectively tunes the structure of matter by changing the energetic hierarchy of bonding and non-bonding forces. Pressure can induce phase transitions and structural changes leading to new molecular arrangements of varied physical properties, such as crystal polarity, magnetic and/or optical properties. Finally, pressure induces chemical reactions leading to the synthesis of new materials of different chemical compositions.

Recent advances in high pressure science are going to be presented within the scope of the seminar. The presentation will be divided in to two main parts: the first one showing the state-of-the-art of high-pressure science methods; and the second one describing several examples of high pressure studies on crystalline and non-crystalline materials. A short review on pressure-induced transformations of simple chemical elements, crystalline and non-crystalline materials of different ferroelectric, magnetic and luminescent properties, as well as high pressure synthesis of nanostructured diamondoid materials will be shown.

Prof. dr hab. Krystyna Jabłońska

Prof. dr hab. Wojciech Paszkowicz