

### **Project 4.3: Experimental studies of new storage phosphors applicable for radiation dosimetry (experimental)**

**Supervisor:** dr hab. Yaroslav Zhydachevskyy

**Institute:** IFPAN

**Unit:** ON4.1

**WWW:** <http://info.ifpan.edu.pl/Dodatki/WordPress/on41en/>

#### **Background:**

Experimental studies of storage phosphors by means of optical spectroscopy and thermally activated techniques, including photoluminescence, radioluminescence, thermally and optically stimulated luminescence, thermally and optically stimulated conductivity, etc. The studies will be performed in frames of realization of the research Project no. 2018/31/B/ST8/00774 financed by the Polish National Science Centre.

#### **Aim:**

The aim of the project is development of new and efficient crystalline phosphors applicable for radiation dosimetry based on the optically (OSL) and thermally stimulated luminescence (TSL) phenomena. .

Realization of the international collaboration with Lviv Polytechnic National University (Lviv, Ukraine) on the subject of the project.

#### **Requirements:**

- Master degree in physics or electronic technique,
- advanced PC user and programming skills of electronic devices (Windows, MS Office, Origin, C/C++, Arduino, LabView, etc.)
- experience in optical spectroscopic and electrical measurements,
- ability to work in a team.

#### **Funding:**

Scholarship: grant funding of 4500 PLN per month, before subtracting obligatory employer and employee social security contributions (~15%), for 14 months. Afterwards, standard Polish PhD scholarship (about 2100 PLN/month net until the end of the 2nd year, 3240 PLN/month net in years 3-4).