

"Physics is the most important" Leonard Sosnowski

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I am probably one of the few who remember the first Jaszowiec Conferences that took place in the Teacher's House. Memories of that old time are very blurred. However, I remember this period as full of enthusiasm and commitment to the study of new phenomena in the so-called "narrow energy gap" semiconductors. I also remember Prof. Leonard Sosnowski, who was the highest authority for us, and who instilled in us the belief that physics is the most important and should primarily regulate relations in our community.

In this time the main narrow-gap semiconductors were InSb and HgTe. The group of physicists at the Institute of Experimental Physics at Warsaw University (IFD UW) and at the Institute of Physics of the Polish Academy of Sciences (IF PAN) focused on studies of these materials and developed very quickly, almost immediately becoming an important team recognized around the world.

In 1960, Prof. Sosnowski hired me at IF PAN and asked to organize a laboratory to study the properties of semiconductors as a function of pressure. He was convinced that pressure would be a very important tool for semiconductor physics. The first fascinating results came very soon. It was discovered that the apparent similarity of InSb and HgTe disappears under pressure. Under normal conditions, it was observed that both the effective mass m^* and the so-called non-parabolic behavior of the bands were almost identical in these materials whereas this resemblance disappeared completely under pressure. The effective mass and the non-parabolicity changed in these materials under high pressure in opposite directions. For the pressure of 12.5 kbar, the effective mass m^* at the bottom of the band increased twice for InSb whereas dropped to zero for HgTe. This result was later a reference point for many works presented at "Jaszowiec" conferences, including many works from our Laboratory of Pressure Studies of Semiconductors at IF PAN.

In 1972, the Laboratory was transformed into an independent Laboratory of High Pressure Physics and Technology UNIPRESS. Together with "Jaszowiec" we are celebrating the 50th anniversary of UNIPRESS. Participation in the "Jaszowiec" conferences has always been very inspiring for us. Since 1985, at the special request of Prof. Sosnowski, UNIPRESS has also had the honor of co-organizing these conferences.

During these 50 years, since the professors: Witold Girit, Wiesław Wardzyński and Józef Żmija took their first steps in the organization of "Jaszowiec", a local Polish conference turned into a prestigious international conference, building the coherence of the entire Polish semiconductor physics community.

When I consider what enabled systematic development and great success of "Jaszowiec", what I see first is Sosnowski's principle that "Physics is the most important", that Physics is our common good which we should observe. A key role of this principle is in line with the hundred-year tradition of "Hoża 69" born in II Rzeczpospolita. Despite turbulent times, this tradition has survived and is still alive among us.