Cooperation

1. Works carried out jointly with research institutes of the Academy of Sciences of the Republic of Uzbekistan and other institutes and enterprises.

   In terms of scientific work, cooperation has been established with the Academy of Sciences of the Republic of Uzbekistan, Institute of Physical and Technical Scientific Research, the Institute of Plant Chemistry, the Institute of Chemical Technology, and the Nuclear Institute. The results of scientific work carried out in cooperation are reflected in articles written in co-authorship.

   Also, the following works have been carried out. That is:

2. According to the mutual cooperation agreement between the Institute of Chemistry of Plant Substances named after Acad. S. Y. Yunusov, the Laboratory of Chemistry of Terpenoids and Phenolic Compounds and the “TIIAME”- National Research University, the Department of Physics and chemistry, the following results were obtained.

According to the mutual cooperation agreement between the Institute of Genetics and Experimental Biology of Plants of the Academy of Sciences of the Republic of Uzbekistan and the “TIIAME”- National Research University, the Department of Physics and Chemistry work was carried out in cooperation with the Institute of Experimental Biology and the following results were achieved. “TIIAME”- National Research University students of Ecology and Environmental Protection Department has returned from a two-week internship at the Institute of Materials Science of the Academy of Sciences of the Republic of Uzbekistan. Students of the Materials Science and New Materials Technology department of the “TIIAME”- National Research University, have returned from a two-week internship at the Institute of Materials Science of the Academy of Sciences of the Republic of Uzbekistan. According to the mutual cooperation agreement between the Institute of Materials Science of the Academy of Sciences of the Republic of Uzbekistan and the “TIIAME”- National Research University, the Department of Physics and Chemistry works in mutual cooperation with the Institute of Materials Science and the following results were obtained. An improved version of photothermal batteries based on photoelectric batteries has been developed. Technical-economic and ecological parameters of the developed device were studied. With the help of the developed device, the aim is to provide hot water and electricity to the villagers located far from the centralized network; In order to ensure the implementation of decrees and decisions on the use of renewable energy sources, experimental versions of the device were developed. The possibilities of autonomous use of photoelectric batteries were studied. Possibilities of using photothermal batteries instead of photoelectric batteries in efficient use of autonomous photoelectric plants were studied. Based on the results of the conducted research, articles and theses were published and submitted for publication in Scopus, in international and local journals. According to the cooperation agreement between the Institute of Physics and Technology of the Academy of Sciences of the Republic of Uzbekistan and the Department of Physics and Chemistry, “TIIAME”- National Research University, high-sensitivity Semiconductor work was carried out in cooperation with the conductors laboratory and the following results were obtained. 15 phenolic compounds were isolated from Rumex confertus Willd and Rumex pamiricus Rech f, belonging to the Polygonaceae family; 45 components were identified in the essential oil of Rumex confertus and 15 in the essential oil of Rumex Pamiricus obtained by the method of chromatomass-spectral analysis (GS-MS), a total of 60 compounds. Antioxidant and antihypoxic activity of anthraquinones, emodin and chrysophanol isolated from the roots of Rumex Pamiricus Rech. f. It was determined in the Laboratory of Toxicology and Pharmacology of the Institute of Chemistry of Plant Substances named after Acad. S. Y. Yunusov. Based on the obtained results, 1 international thesis, 1 article in an international journal indexed in bases recognized by OAC (IF - 4.732), 2 articles listed in OAC, Scopus and high impact factor international journals were given for publication. Based on the obtained results, 1 international theses, 2 articles were given for publication in international journals with Scopus and high Impact Factor.