

# Research groups

**Research group:** Coal deposits of Central Kazakhstan

**Scientific adviser:** Portnov V. S., A. D. Mausymbayeva

The micro-component composition of Central Kazakhstan coals is investigated. The analysis of the possible use of coal deposits Shubarkol in the smelting of technical silicon.

The work involved doctoral students Amangeldikizy A., Duzhnikova E. V., Kopobaeva A. N. undergraduates Kim A. R. (GRM-17), Ganeeva L. M. (GRM-17), the obtained material is used in writing reports on the research work of undergraduates. Published a monograph on this topic, article (Scopus), sent 2 reports to the conference and an article in the journal "Coal".

**Research group:** Platinum Group Metals Northern Ulytau

**Scientific adviser:** Ponomareva M. V., Lee E. S.

As a result of researches it is established that along with earlier known sulfides (pyrrhotite, pentlandite and chalcopyrite) in picrites of karaturgay complex for the first time zigenite, platinum telluride (moncheite), silver telluride, lead telluride (altaite), lead selenide, solid solutions of metals of iridium group (Ir, Os, Ru), rare earth elements (Dy, Er, Y, Ce) are found. The regularity in the distribution of platinoids in the composition of liquation sulfides is revealed, which gives an answer to why the ore concentrate was diluted.

The work involved a student of PhD GRD-18 Lee E. S., the students of master courses GRM-18 Sobolev M., Toregozhin A., with similar topics of master's theses, which will use the results of laboratory research in writing articles, dissertations and reports on research. The article (Scopus) was published, 2 reports were submitted to the XXIII international scientific Symposium of students and young scientists named after academician M. A. Usov "Problems of Geology and subsoil development" (Tomsk), which will be held on April 8-12, 2019.

**Research group:** Ore deposits of Kazakhstan

**Scientific adviser:** Portnov V. S., Kryazheva T. V..

Isataeva F. M., makhanova N. A., Ponomareva E. V., Kaskataeva K. B., Kauldashev D., Aukeshev B., Askarova N. S. Sultanov G., Baybolova G., Kikina E. (doctoral Students), orazbayeva Zh, Tebaeva A., Mukhsunova B., Halmuradova F., moldabaeva E., Ibragimov E. (undergraduates).

As a result of the work of the research group, 3 Scopus articles and 2 CCSON articles were published.

**Research group** Development of methods and means of quality control of mineral raw materials

**Scientific adviser:** Park D. Y., Park Y. N.

Researches of component composition of coals are carried out. The radioactivity of coal and ash and slag waste was determined. The regularities of changes in the chemical composition are revealed, which allows to optimize the development of instrumental nuclear-physical methods of coal quality control in the direction of improving the accuracy of the analysis by taking into account the matrix effect caused by the redistribution of the component composition of the mineral part.

The work involved the students of master courses GRM 17 Tebaeva A., Vasilchenko D. 2 articles in rating magazines were submitted and published.