In 2003, the analysis of results of 1998 runs was continued. PNPI together with Abilene Christian University prepared for publication new results on the reaction $\pi^- p \to \pi^0 n$ in the energy range from 65 to 210 MeV. The PNPI group is also involved in the analysis the data obtained in the process $\pi^- p \to \eta n$ using a CH_2 target. In contrast with measurements of 1998, a polyethylene (but not a liquid hydrogen) target was used in experiments in 2002. To eliminate a background caused by the interaction of the incident pions with carbon nuclei contained in the polyethylene target, a carbon target of corresponding thickness was made of graphite. Additional runs with the carbon target were done at each incident pions momentum. Data obtained with the carbon target were subtracted during the off-line processing from CH_2 data after an appropriate normalization of monitor counts.

The new results for the process $\pi^- p \to \eta n$ are in agreement with results obtained in 1998.

The data for the reaction $\pi^- p \to \pi^0 n$ for the energy interval from 210 to 625 MeV are under processing and analysis now. In 2004, this analysis will be continued at PNPI as well as at BNL and ACU (USA).

New results on the reaction $\pi^- p \to \pi^0 n$ will be used in a new phase shift analysis. The aim of this analysis is to confirm with a good precision the charge splitting of the Δ_{33} resonance and to improve our knowledge of characteristics of low-lying P_{11}, S_{11} and D_{13} resonances.

Professor M.Sadler from Abilene Christian University visited PNPI in 2003 during five months, he took part in processing data on the reaction $\pi^- p \to \pi^0 n$, which were obtained in joint experiment at BNL.