Closed Joint-Stock Company
Lisichanskaya neftyanaya investitsionnaya kompaniya
(Lisichansk Oil Investment Company)

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To №_____ of _____

Intergovernmental council
for awarding Russian Federation Government
Prizes in Science and Technology

REFERENCE

for the work: "Invention and widespread introduction of competitive Russian isomerization technology and industrial complexes Isomalk for large-scale motor gasolines production, meeting European standards requirements", completed by composite authors: Glazov A.V., Lugovskoy A.I., Nickolaychuck V.A., Rozenberg L.S., Sannikov A.L., Fedorova M.L., Cherner A.M., Shakun A.N., nominated for Russian Federation Government Prize in Science and Technology by JSC Gazprom Neft in 2011.

Toughening of world ecological requirements for motor gasolines quality and introduction of Euro-standards, significantly limiting allowable contents of sulfur, aromatic and unsaturated hydrocarbons in finished motor gasolines, raised a pressing question for petroleum refiners of necessity to obtain environmentally friendly non-aromatic motor gasoline components. The well-timed solution to this problem became creating by authors the low-temperature isomerization technology that allowed to organize the production of high-quality motor gasoline component in large industrial scale. Therein lays the undoubted currency of work that was performed by Russian composite authors.

High scientific status of the presented work consists in generation of scientific bases for synthesis of sulfated oxide systems and high-efficient isomerization catalyst, and complex research of technological parameters effect on isomerization process performances.

Light naphtha isomerization technology Isomalk-2 based on using of non-chlorinated oxide catalyst SI-2 has patented in many countries and has significant advantages over the world analogues. Advantages are the following: SI-2 stability to the action of catalytic poisons, longer cycle length (up to 6 years), high selectivity in C_5-C_6 isomerization, and low temperature of the process (130-170 °C). In addition, acid agents are not used in the process, this excludes the