***I.R. Nizameev, M.K. Kadirov, L.Ya. Zakharovа, A. Muscat,***

***E.S. Nefed’ev***

Kazan National Research Technological University

A.E. Arbuzov Institute of Organic and Physical Chemistry of Kazan Scientiﬁc

Center of Russian Academy of Sciences, University of Arizona

**Formation of nanoscaled platinum grid on solid surface using micellar template and aminosilane**

One-dimensional (1-D) thin (2‑5 nm) parallel stripes of platinum were synthesized on solid surface. To this purpose a new method of chemical deposition from a liquid phase was developed. The method based on using micellar template of cetyltrimethylammonium bromide (CTAB). It has been found that the morphology of the template at the water/solid interface is thermoregulated. Due to this it is possible to regulate the morphology of metal clusters produced using CTAB. Moreover, the method has been improved in order to obtain a system of parallel strips of platinum on the surface of silicon, which is most attractive from the point of view of nanoelectronics. To achieve that the surface of silicon was modified by 3-aminopropyl trimethoxysilane (APTMS).