

Dear Colleagues,
It is our great pleasure to announce to you that **‘EUROPEAN BIOTECHNOLOGY CONGRESS 2016‘** will be held in **Riga, Latvia** between 05 – 07 May 2016.
Latvia, officially the Republic of Latvia, is a country in the Baltic region of Northern Europe, one of the three Baltic States. Riga is the capital and the largest city of Latvia. Riga is also the largest city of the Baltic States and home to more than one third of Latvia's population. Riga has an ancient history and rich cultural heritage.
The University of Latvia is a state-run university located in Riga, Latvia. Established in 1919, the University of Latvia is the largest university in the Baltic States.
On behalf of the organizing committee, we kindly invite you to **EUROPEAN BIOTECHNOLOGY CONGRESS 2016** and **Riga, Latvia.**
Kind regards,

|  |  |  |  |
| --- | --- | --- | --- |
| **Munis Dundar**President of EBTNA | **Mariapia Viola Magni**Honorary President of EBTNA | **Indrikis Muiznieks**Honorary President of the Congress | **Anna Zajakina**Chairman of Local Organising Committee |

EUROPEAN BIOTECHNOLOGY CONGRESS 2016 // 05 – 07 MAY 2016 // RIGA, LATVIA

2. Complex processing of rice husk and using in biomedical applications

S.Aknazarov1,2, N. Ablaikhanova1, O.Golovchenko1, Z.Yessimsiitova1, S. Tuleukhanov1,

Nurzat Ablaikhanova1

*¹Al-Farabi Kazakh National University, Almaty, Kazakhstan1*

2Institute of Combustion Problems, *Almaty, Kazakhstan2*

*E-mail address:* *sestager@mail.ru*

In this study, we used rice husk for biomedical purposes. Often, waste producers are not even aware of the possibility of their use as raw materials for biomedical application. Still, the main role plays the lack of the integrated technologies that address regional conditions, although information about many processes of processing is extensive and requires relatively little data for the full development of the technological parameters of production.

The main part of the research devoted to finding ways to improve the properties of the husks and setting its maximum allowable concentration when used in biomedical applications. Shredded husk can serve as different sorbent materials. Rice husks, subjected to deep processing, can be used to produce a number of inorganic and organic ingredients: silicon compounds - dioxide, silicon carbide, silicon nitride, silicon tetrachloride, pure silicon, silicates, carbon, xylose, polysaccharides, furfural, etc. It should be noted that when the thermal decomposition of rice husk is allocated a significant amount of volatile substances. Their composition studied in include oxides of carbon, hydrogen and water vapor, a number of organic acids, aldehydes and their derivatives. Carcinogenic substances were not detected. As research have shown, powder obtained by pyrolysis - black material consisting mainly of carbon (50-55 wt. %) and silicon dioxide (40-45 wt. %) is promising sorbent for biomedical applications.

**Keywords:** rice, biomedical applications, silicon tetrachloride, pure silicon, silicates, carbon, xylose, polysaccharides, furfural.