

S. Azat

SILICA: ASSESSMENT METHODS OF
SYNTHESIS FROM RICE HUSK,
MAIN PHYSICAL-CHEMICAL
CHARACTERISTICS AND PRACTICAL
APPLICATIONS

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Reviewers:

PhD., acting associate Prof. **K.K. Kudaibergenov**
(al-Farabi Kazakh National university)

PhD. **S. Turganbay**
(RSE Scientific Center for Anti-Infective Drugs)

Azat S.

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This monograph contains theoretical and experimental results of the evaluation of various types of the method for the synthesis of silicon dioxide from rice husk of Kazakhstan (Almaty, Kyzylorda and Turkystan) and its application in water purification (Bykylidak). Based on literature data, it can be noted that the disposal of solid waste such as rice husk and rice straw is a global problem, the burning of which can produce greenhouse gases that adversely affect the environment. In this regard, considerable attention in this monograph is paid to the creation of a complete technological sequence for processing rice husk and the development of economically and environmentally beneficial applications.

The monograph is designed for a wide range of specialists in the field of chemistry, nanotechnology, agrochemistry and technology of production and processing of agricultural products, as well as students, undergraduates and Ph.D. doctoral students of relevant specialties.

Настоящая монография содержит теоретические и экспериментальные результаты оценки различных видов метода синтеза диоксида кремния из рисовой шелухи Казахстана (Алматы, Кызылорда и Туркестан) и его применения в очистке воды (Балкылдак). Опираясь на литературные данные можно отметить, что утилизация твердых отходов таких как рисовая шелуха и рисовая солома является глобальной проблемой, при сжигании которой могут образоваться парниковые газы, пагубно влияющие на окружающую среду. В связи с этим значительное внимание в данной монографии уделено созданию полной технологической последовательности переработки рисовой шелухи и разработке экономически и экологически выгодных применений.

Монография рассчитана на широкий круг специалистов в области химии, нанотехнологии, агрохимии и технологии производства и переработки сельскохозяйственной продукции, а также студентов, магистрантов и Ph.D. докторантов соответствующих специальностей.

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