

Using the alcoholate of aluminium oxide as a raw material for leucosapphire production

© Olga A. Sycheva,* Sergey A. Kon'kov,⁺ and Vitaly P. Boukalov

JSC "All-Russia Scientific-Research Institute of Organic Synthesis in Novokuibyshevsk". Promyshlennoe
Shosse St., 11. Novosemeikino, 446379. Samara Region. Russia. E-mail: vniios@mail.ru

*Supervising author; ⁺Corresponding author

Keywords: *aluminium oxide, aluminium hydroxide, alcoholysis, leucosapphire, aluminium isopropoxide, pure substances, monocrystals.*

Content

Introduction

1. General characteristics of high-clean oxides
2. Production of high purity aluminium oxide
3. Properties and structure of aluminium isopropoxide
4. Technology for producing high-clean aluminium alpha-oxide and theoretical conditions for growing leucosapphire
5. Methods for growing infusible crystals

Abstract

Information has been reviewed and analyzed on obtaining high-purity metal oxides, including aluminium oxide. Various methods of obtaining aluminum isopropoxide, alpha-oxide of aluminium, methods of growing crystals have been discussed.