

## Sulfur composite materials based on sulfide containing industrial waste

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### Abstract

© 2017 Trans Tech Publications, Switzerland. A technology for the production of sulfur composite materials based on waste from BaCl<sub>2</sub> at Karpov Mendeleyevsk Plant (Russia) was developed. The physical chemical and quantum chemical studies were performed for the “sulfur – sulfide containing industrial waste-filler” system. The usage of sulfide ion CaS enables sulfur activation to promote the chemical interaction between the components and synthesis of sulfides and sulfur materials with high physical mechanical properties from them.

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### Keywords

Calcium sulfide, Quantum chemical calculations, Silicon dioxide, Sulfides

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