

## Preparation of copper-containing microfertilizers

Sagitova R., Gaisin I., Gilmanshina S.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### Abstract

© Published under licence by IOP Publishing Ltd. The paper considers the preparation of chelate microfertilizers based on copper salts and monoethanolamine. Monoethanolamine increases the solubility of copper compounds in water, which makes it possible to use a wasteless technology for the production of a micronutrient solution with a high mass fraction of a microelement. The resulting microfertilizer solutions have a positive effect on the growth and development of agricultural plants.

<http://dx.doi.org/10.1088/1757-899X/412/1/012067>

---

### References

- [1] Kashapov N F, Gil'manshin I R, Konahina I A et al 2014 System analysis of the energy complex of engineering enterprise as a basic tool of effective energy management IOP Conference Series: Materials Science and Engineering 69 012024
- [2] Gilmanshin I R, Kashapov N F, Gilmanshina S I and Galeeva A I 2016 Landfill energy complex based on the renewable energy installations IOP Conference Series: Materials Science and Engineering 134 012007
- [3] Azimov Yu I, Gilmanshin I R, Gilmanshina S I et al 2016 Modern technologies of waste utilization from industrial tire production IOP Conference Series: Materials Science and Engineering 134 012003
- [4] Gaisin I A et al 1999 A method for obtaining compositions for stimulating the growth of agricultural crops Patent Russian Federation No 2086126
- [5] Gaisin I A et al 1995 A method for preparing a composition for stimulating the growth of crops Patent Russian Federation No 2086126