

Stages of formation of scientific thinking of students in terms of engineering education at the university

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Abstract

© Published under licence by IOP Publishing Ltd. The types of contradictions arising in the process of explaining science phenomena and processes in engineering education were considered. The authors proves the possibility and the stages of formation of scientific thinking of the students of the engineering directions at classical universities through the analysis of these contradictions.

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References

- [1] Gilmanshin I R and Gilmanshina S I 2016 IOP Conf. Ser.: Mater. Sci. Eng. 134 012006
- [2] Gilmanshina S I and Khalikova F D 2016 Teaching Gifted Adolescents in Terms of the Transforming Natural Sciences Education Iste 2016 - 2nd International Forum on Teacher Education 12 50-54
- [3] Samigullina G S, Gilmanchina S I, Gaisin I T, Gilmanshin I R and Akchurina I R 2015 Professional and Creative Development of Natural Geographic Course Teachers within the Process of Professional Retraining International Education Studies 8
- [4] Gilmanshina S I, Gilmanshin I R, Sagitova R N and Galeeva A I 2016 The Feature of Scientific Explanation in the Teaching of Chemistry in the Environment of New Information of School Students' Developmental Education International Journal of Environmental and Science Education 11 349-58
- [5] Gilmanshina S I, Sagitova R N et al 2015 Professional Thinking Formation Features of Prospective Natural Science Teachers Relying on the Competence-Based Approach Review of European Studies 7 341-49
- [6] 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
- [7] 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
- [8] 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