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| [**DOI**: 10.31643/2019/6445….](https://doi.org/10.31643/2019/6445.22)  UDC 669.85/.86: 553.3/.4(574)  IRSTI 53.37.35 | https://creativecommons.org/licenses/by-nc-nd/3.0/ |

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*Received: 31 May 2018 / Peer reviewed: 23 July 2018 / Accepted: 01 August 2018*

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**Table 1** Chemical composition of phosphorus slag

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| ontent of the slag (wt %) | | | | | |
| SiO2 | Al2O3 | P2O5 | Fe2O3 | MgO | TiO2 |
| 36.9 | 5.2 | 2.0 | 1.63 | 2.4 | 0.14 |

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**Acknowledgments**

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1. Azarenkov N.A., Litovchenko S.V., Neklyudov I.M., Stoev P.I. *Korroziyа i zashchita metallov. Chast ‘1. Khimicheskayа korroziyа metallov. Uchebnoe posobie* (Corrosion and protection of metals, Part 1. Chemical corrosion of metals., Tutorial). Kharkov: KhNU, **2007**, 187. (in Russ.)

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**Тұндырылған кремний диоксиді мен сирекжерлік металдарды алу үшін фосфорлы шлактың азотқышқылды өндеу жағдайлары**

**А. Акчил, З.Б. Қаршигина, Е,Г. Бочвская**

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**Түйін сөздер**: сульфидті мыс концентраты, Ванюков балқыту, штейн, үйінді қож, магнетит, жылу балансы

**Условия азотнокислотной обработки фосфорного шлака для извлечения рзм и получения осажденного диоксида кремния**

**А. Акчил, З.Б. Каршигина, Е,Г. Бочевская**

**Аннотация.** The abstract translation into Russian is provided here. For example: Фосфорный шлак является самым многотоннажным отходом производства желтого фосфора, который много лет складируется на отвальных полях, создавая экологические проблемы в регионах. …. Delete this sentence and paste your abstract preserving the formatting.

**Ключевые слова:** фосфорный шлак, редкоземельные металлы, выщелачивание, кинетика, кремнийсодержащий кек, извлечение, очистка

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2. [Jiang X.J.](http://www.scopus.com/authid/detail.url?origin=resultslist&authorId=55611683100&zone=), [Yun Y.](http://www.scopus.com/authid/detail.url?origin=resultslist&authorId=39162385800&zone=), [Hu Z.H.](http://www.scopus.com/authid/detail.url?origin=resultslist&authorId=55705497500&zone=) [Development of non-autoclaved aerated concrete by alkali activated phosphorus slag](http://www.scopus.com/record/display.url?eid=2-s2.0-79958013262&origin=resultslist&sort=plf-f&src=s&st1=the+use+of+phosphorus+slag+for+construction+materials&st2=&sid=5EBEEA0B1C14C1364BDDEDE4C3A0C036.y7ESLndDIsN8cE7qwvy6w%3a230&sot=b&sdt=b&sl=68&s=TITLE-ABS-KEY%28the+use+of+phosphorus+slag+for+construction+materials%29&relpos=10&relpos=10&citeCnt=1&searchTerm=TITLE-ABS-KEY%28the+use+of+phosphorus+slag+for+construction+materials%29) // [Advanced Materials Research](http://www.scopus.com/source/sourceInfo.url?sourceId=4700151906&origin=recordpage). - **2017**. – V. 250–253. – P. 1147–1152. <https://doi.org/10.1016/j.cis.2017.08.001>
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2. [Jiang X.J.](http://www.scopus.com/authid/detail.url?origin=resultslist&authorId=55611683100&zone=), [Yun Y.](http://www.scopus.com/authid/detail.url?origin=resultslist&authorId=39162385800&zone=), [Hu Z.H.](http://www.scopus.com/authid/detail.url?origin=resultslist&authorId=55705497500&zone=) [Development of non-autoclaved aerated concrete by alkali activated phosphorus slag](http://www.scopus.com/record/display.url?eid=2-s2.0-79958013262&origin=resultslist&sort=plf-f&src=s&st1=the+use+of+phosphorus+slag+for+construction+materials&st2=&sid=5EBEEA0B1C14C1364BDDEDE4C3A0C036.y7ESLndDIsN8cE7qwvy6w%3a230&sot=b&sdt=b&sl=68&s=TITLE-ABS-KEY%28the+use+of+phosphorus+slag+for+construction+materials%29&relpos=10&relpos=10&citeCnt=1&searchTerm=TITLE-ABS-KEY%28the+use+of+phosphorus+slag+for+construction+materials%29). [*Advanced Materials Research*](http://www.scopus.com/source/sourceInfo.url?sourceId=4700151906&origin=recordpage)*.* **2017.** *250­­­­–253*, 1147–­1152. <https://doi.org/10.1016/j.cis.2017.08.001> (in Eng.).
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