

Founder: Federal State Autonomous Educational Institution  
of Higher Education "Northern (Arctic) Federal University  
named after M.V. Lomonosov"



Registration certificate ПИИ no. ФС 77-67711  
issued on November 10, 2016 by the Federal  
Service for Supervision in the Sphere  
of Communications, Information Technology and Mass  
Communications (Roskomnadzor)

Subscriptional index of the journal – 38565

*Editor in Chief* **I.N. Bolotov**

*Deputy Chief Editor* **B.Yu. Filippov,**  
**Yu.V. Bespalaya,**  
**M.V. Nikitina**

*Executive Secretary* **E.V. Ugryumova**

*Editorial Board:*

V.S. Aslanov (Russia), G. Binder (France),  
K.G. Bogolitsyn (Russia), I.N. Bolotov (Russia),  
L. Brigham (USA), A.N. Chilingarov (Russia),  
H.-D. Engelmann (Germany), O.N. Ezhov (Russia),  
I.E. Frolov (Russia) V.P. Gergel' (Russia),  
S. Grozdev (Bulgaria), M.G. Gubaidullin (Russia),  
A.I. Zeyfman (Russia), L. Lajunen (Finland),  
A.I. Malov (Russia), E.N. Nakvasina (Russia),  
J. Niemela (Finland), A.P. Novoselov (Russia),  
M. Ozgo (Poland), O. Pokrovsky (France),  
E.V. Polyakova (Russia), V.N. Popov (Russia),  
L.S. Shirokova (Russia) L.B. Sokolinskiy (Russia),  
P. Stougaard (Denmark), L. Urbaniak (Poland),  
I.V. Khmelinsky (Portugal), O.A. Shpigun (Russia)

**Vol. 20, no. 1**  
**2020**

## CONTENTS

### GEOSCIENCES

---

**Romanov E., Shabanova C., Nakvasina H., Popova A., Kosareva H.** Dependence of proportions and seasonal application of saponite water suspension as ameliorant on acidic properties of soil..... 10

**Belozerov I.P., Gubaidullin M.G., Yuriev A.V.** Analysis of the core microstructure of terrigenous reservoirs based on lithological-petrographic studies to support the creation of digital core model... 37

### BIOLOGY

---

**Potapov G.S., Kolosova Yu.S.** *Bombus (Pyrobombus) jonellus* (Kirby, 1802) in the north-western Russian Plain: its distribution and ecology..... 1

**Koroleva N.E., Kopeina E.I.** Rare and endangered vegetation and vascular plants in canyon "Gorodskaya shchel'" (Town Crack)" in southern part of Khibiny Mountains (Murmansk Region, Russia).... 17

**Kishchenko I.T.** Growth and development of the introduced *Fraxinus* L. species in the taiga zone (Karelia) ..... 29