Full Paper	Thematic Section: Chemistry of Natural Compounds.
Reference Object Identifier – ROI: jbc-02/16-46-5-74	Subsection: Oxidation Processes.
Publication is available for discussion in the framework of the on-li	ne Internet conference "Butlerov readings".
http://butlerov.com/readings/	
Submitted on July 11, 2016.	

Oxidation processes in the system dihydroquercetin – isopropanol – water, initiated by calcium ions

© Andrey T. Teleshev, 1* Elena N. Mishina, 1 Nikita N. Kamkin, 1 Andrey A. Belousov, 1 and Evgeny N. Ofitserov 2+

¹ Institute of Biology and Chemistry. Moscow State Pedagogical University.

Nesvizh per., 3, Moscow, 119021. Russia. E-mail: chemdept@mail.ru

² Department of Chemistry and Technology of Biomedical Products. Russian Chemical Technological University Named after D.I. Mendeleev. Miusskaya Sq., 9. Moscow, 125047. Russia.

Phone: +7 (495) 978-87-33. E-mail: ofitser@mail.ru

* Leading direction; * Corresponding author

Keywords: dihydroquercetin, quercetin, isopropanol, calcium ions, molecular oxygen oxidation.

Abstract

The oxidation processes occurring in the system dihydroquercetin – isopropanol – water – molecular oxygen in the presence of calcium ions have been investigated. Calcium as oxidation initiator was selected based on the data elements in the ash content larch wood among which stands out this metal. The oxidation process of transformation of the dihydroquercetin to quercetin and side oxidation of the medium – isopropanol which initiated by calcium ions can be taken into account at building of the new catalytic scheme of practical significance and in the simulation of potentially admissible processes in a living organism.