

- calculation of system of rear ventilated facades. *Applied Mechanics and Materials*. 2014. Vol. 633-634. Pp. 1007–1012.
11. Nemova D.V. Sistemy ventilyacii v zhilyh zdaniyah kak sredstvo povysheniya ehnergoehffektivnosti [Systems of ventilation in residential buildings as means of increase of energy efficiency. *Construction of Unique Buildings and Structures*. 2012. No. 3. Pp. 83–86. (rus)
 12. Barbosa S., Ip K. *Double Skin Façade for Naturally ventilated office Buildings in Brazil*. University of Brighton, 2014.
 13. Buildings Performance Institute Europe (BPIE), Europe's Buildings Under the Microscope: A country-by-country review of the energy performance of buildings. 2011. Part 2.
 14. Bianco L., Callegari G., Serra V., Spinelli A. Timber solar facade: A responsive façade for the refurbishment of existing buildings. *10th Conference on Advanced Building Skins*. Bern – Switzerland, 2015. Pp. 402–412.
 15. Nečasová B., Liška P., Jiří Š. *Wooden Facade and Determination of Strength of Bonded Timber Joints*. Technical University of Brno, Czech Republic, 2014.
 16. Sunakom P., Yimprayoon C. *Thermal Performance of Biofacade with Natural Ventilation in the Tropical Climate*. 2011.
 17. Nore K., Thue J.V. *Ventilated Wooden Claddings - A Field Investigation*. Norwegian Institute of Wood Technology. Norway. 2015.
 18. Pinto H. *Dossiê Técnico Econômico. Fachadas Ventiladas*. Brazil, 2006. Vol. 2. Pp. 03–11. (pt.)
 19. EN 13164:2012. Thermal insulation products for buildings. Factory made products of extruded polystyrene foam (XPS). Specification, ISBN 978-0-580-59853-1.
 20. White R. *Use of Coatings to Improve Fire Resistance of Wood*. American Society for Testing and Materials. Standard Technical Publication 826. Philadelphia, USA, 1984. Pp. 24–39.
 21. Hakkarainen T. *Thin thermal barriers for wood based products to improve fire resistance*. Report Code: VTT-R-07061-09. Espoo, Finland, 2010. Pp. 2–11.
 22. Zaborova D., Vieira G., Musorina T., Butyrin A. Experimental study of thermal stability of building materials. *Advances in Intelligent Systems and Computing*. 2017. Vol. 692. Pp. 482–489.
 23. Ruzgys A., Volvačiovas R., Ignatavičius Č., Turskis Z. Integrated evaluation of external wall insulation in residential buildings using SWARA-TODIM MCDM method. *Journal of Civil Engineering and Management*. 2014. Vol. 20. No. 1. Pp. 103–110.
- Pp. 1007–1012.
11. Немова Д.В. Системы вентиляции в жилых зданиях как средство повышения энергоэффективности // Строительство уникальных зданий и сооружений. 2012. № 3. С. 83–86.
 12. Barbosa S., Ip K. *Double Skin Façade for Naturally ventilated office Buildings in Brazil*. University of Brighton, 2014.
 13. Buildings Performance Institute Europe (BPIE), Europe's Buildings Under the Microscope: A country-by-country review of the energy performance of buildings. 2011. Part 2.
 14. Bianco L., Callegari G., Serra V., Spinelli A., Timber solar facade: A responsive façade for the refurbishment of existing buildings // 10th Conference on Advanced Building Skins. Bern, Switzerland. 2015.
 15. Nečasová B., Liška P., Jiří Š. *Wooden Facade and Determination of Strength of Bonded Timber Joints*. Technical University of Brno, Czech Republic, 2014.
 16. Sunakom P., Yimprayoon C., Thermal Performance of Biofacade with Natural Ventilation in the Tropical Climate. 2011.
 17. Nore K., Thue J.V. *Ventilated Wooden Claddings - A Field Investigation*. Norwegian Institute of Wood Technology. Norway. 2015.
 18. Pinto H. *Dossiê Técnico Econômico // Fachadas Ventiladas*. Brazil, 2006. Vol. 2. Pp. 03–11. (pt.)
 19. EN 13164:2012. Thermal insulation products for buildings. Factory made products of extruded polystyrene foam (XPS). Specification, ISBN 978-0-580-59853-1.
 20. White R. *Use of Coatings to Improve Fire Resistance of Wood*. American Society for Testing and Materials. Philadelphia, USA. 1984.
 21. Hakkarainen T. *Thin thermal barriers for wood based products to improve fire resistance*. Espoo, Finland, 2010.
 22. Zaborova D., Vieira G., Musorina T., Butyrin A. Experimental study of thermal stability of building materials // *Advances in Intelligent Systems and Computing*. 2017. Vol. 692. Pp. 482–489.
 23. Ruzgys A., Volvačiovas R., Ignatavičius Č., Turskis Z. Integrated evaluation of external wall insulation in residential buildings using SWARA-TODIM MCDM method // *Journal of Civil Engineering and Management*. 2014. Vol. 20. № 1. Pp. 103–110.

Gabriel Vieira,
+7(911)177-32-31; gabriel.vieira@poli.ufrj.br

Mikhail Petrichenko,
+7(921)330-04-29; fonpetrich@mail.ru

Tatiana Musorina,
+7(952)286-03-76; flamingo-93@mail.ru

Daria Zaborova,
+7(911)180-60-33; zaborova-dasha@mail.ru

Габриэль Беренгуер Виейра,
+7(911)177-32-31;
эл. почта: gabriel.vieira@poli.ufrj.br

Михаил Романович Петриченко,
+7(921)330-04-29; эл. почта: fonpetrich@mail.ru

Татьяна Александровна Мусорина,
+7(952)286-03-76;
эл. почта: flamingo-93@mail.ru

Дарья Дмитриевна Заборова,
+7(911)180-60-33;
эл. почта: zaborova-dasha@mail.ru

© Vieira G.B., Petrichenko M.R., Musorina T.A., Zaborova D.D., 2018

Виейра Г.Б., Петриченко М.Р., Мусорина Т.А., Заборова Д.Д. Деревянный фасад с вентилируемыми каналами для тропического климата // Инженерно-строительный журнал. 2018. № 3(79). С. 103–111.