

## Supervisor's Report

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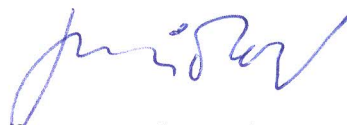
Md. Mostafizur Rahman received his B.S. degree in chemistry from the Rajshahi University in Bangladesh in 2003. After receiving his M.S. degree in organic chemistry from the Rajshahi University in Bangladesh in 2004, he began to work at the Bangladesh Council of Scientific and Industrial Research in a position of scientific officer and later of senior scientific officer. His main professional activities were to utilize locally available bioresources in the pulp and paper industry and to conserve natural forest.

In January 2016, he began working as a Ph.D. student at the University of Pardubice (Czech Republic), Faculty of Chemical Technology, Institute of Chemistry and Technology of Macromolecular Materials under the supervision of Professor František Potůček in the field of the displacement washing of pulp.

At first, he cooked kraft spruce pulp delignified to 7 various degrees under laboratory conditions using a batch digester. The main scientific objective of his Ph.D. thesis was to investigate the pulp washing efficiency for the kraft spruce pulps with the various delignification degrees. Secondary objectives were to investigate the effect of wash water temperature and of bed consistency upon the displacement washing efficiency, as well as to compare displacement washing of the kraft and sulphite spruce pulps. Furthermore, in order to characterise chemical composition of kraft spruce pulp, Mr. Rahman analysed unwashed and washed pulp to determine Klason and acid-soluble lignin content. The determination of hexeneuronic acids in pulp was performed in your home research institute in the Bangladesh Republic.

In my opinion, Md. Mostafizur Rahman has proved to be capable of solving time-consuming research problems. His doctoral thesis presents new results in the field of displacement washing research. The results obtained have been published in scientific international conferences and accepted for publication by one international journal and two foreign journals. His lecture entitled *Washing of sulphite spruce pulp* presented during the International Students Scientific Conference in Technical University in Zvolen has been awarded Dean's award for the second place in the section of Ph.D. students. I suppose that his Ph.D. thesis fulfils all important criteria desired for doctoral thesis. Therefore, I recommend the thesis submitted by Md. Mostafizur Rahman for public defence.

Pardubice, March 27, 2019



prof. Ing. František Potůček, CSc.  
supervisor