Supervisor's opinion on the PhD. thesis

"Preparation and characterization of nanocomposite thin films for electronic and catalytic applications"

written by Hassan Ali, MSc.

submitted to

Tomas Bata University in Zlin

Hassan Ali, MSc. studied PhD programme "Nanotechnology and advanced materials" at the Tomas Bata University in Zlín, Czech Republic. The study was performed at the Centre of Polymer Systems, which is the research unit of the University institute in charge of the study programme realization. Within his studies, Hassan Ali has fulfilled all the duties connected with the study programme and successfully passed the state exam in 2023. His work is focused on developing new photocatalytic materials on the base of metal oxide semiconducting materials and graphitic carbon nitride to obtain efficient photocatalysts with the potential for being used in water pollution treatment.

The dissertation thesis is based on three published original full-length articles in the following journals: Catalysts, Journal of Photochemistry and Photobiology A: Chemistry, and Materials Letters. These journals are relevant to the field of study and are impacted and indexed by Thomson Reuters ISI Web of Science. Hassan Ali is the first author of all the papers, and his contribution to these publications was the most significant. Therefore, the body of the Thesis consists of parts potentially indicated by similarity analysis in anti-plagiarism text-checking systems. It must be emphasized that all these scores account for the three papers with Hassan Ali's works and results. All indicated paragraphs are appropriately cited. The three papers are auto-referred by [HA X] codes, where X stands for the main paper number 1, 2 or 3, to simplify the reading of the Thesis. Moreover, the study regulation requires that substantial parts of the Thesis be published, making matching the Thesis with the published works inevitable. All papers were published with a relatively small number of co-authors. Besides the main articles, Hassan Ali co-authored three other articles published in very good journals on topics relevant to his specialization. Hassan Ali also presented his results on international conferences with five full-text contributions. During his study at the TBU in Zlin, Mr Ali has demonstrated sufficient diligence, knowledge and effort to fulfil the studied PhD programme successfully.

With regard to these facts and according to my opinion, the submitted dissertation work is well conceived, and I recommend it to be defended and, upon the successful defence, award Mr Hassan Ali the Doctor of Philosophy (Ph.D.) degree.

Zlín 20.07.2023

Assoc. Prof. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D.

Supervisor