

БЪЛГАРСКА АКАДЕМИЯ на НАУКИТЕ	
ИНСТИТУТ за ГОРАТА	
Регистрационен индекс, № и дата	
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Срок за изпълнение	

## POSITION

On the materials submitted for participation in a competition for the academic position "Associate Professor" in the professional field 6.1 Plant Growing, scientific specialty Soil Science, announced by the Institute of Forestry - BAS in State Gazette No. 35 / 27.04.2021

**Candidate for participation in the competition:** . Assistant Professor Dr. Vanya Georgieva Kachova - Institute of Forestry, BAS

**Prepared the opinion:** Assoc. Prof. Dr. Biser Emilov Hristov - University of Forestry - Sofia and ISSAPP "N. Pushkarov ".

### 1. Brief biographical information.

Vanya Georgieva Kachova was born on April 20, 1964, in the town of Dospat, district Smolyan She had been graduated at Dimitar Blagoev Polytechnic High School in Vidin in 1982. She studied at the Sofia University with a degree in Analytical and Organic Chemistry, graduating with a master's degree in 1988. She worked also at the Institute of Plant Physiology – BAS as specialist biologist. From 1995 to 1996 she was a teacher, technical manager of a training workshop on rubber and plastics. In 1996 she started as a chemist in the Laboratory of Forest Soil Science at IF-BAS. In 1999 she started working as a research associate, then she was enrolled as a doctoral student, graduating in 2006. Since 2007 she holds the position of assistant professor.

**2. Compliance of the submitted documents and materials of the applicant with the minimum requirements, according to the regulations for acquiring scientific degrees and holding academic positions at the Institute of Forestry - BAS.**

The presented materials meet the requirements. The "minimum required points by groups of indicators" achieved by the applicant exceed the values specified in Table 1 of Annex 1, Area 6. "Agricultural Sciences and Veterinary Medicine" of the "Regulations on the terms and conditions for obtaining scientific degrees for academic positions in IF - BAS ". The total number of points reached by the candidate are 1063.5 points, with a requirement of the minimum total number of 500 points for associate professor.

**3. General description of the presented materials (by type; by importance; place of publication; language in which they are published; number of co-authors, etc.)**

A total of 27 published articles are presented as follows: by groups of indicators: Kcategory A – 50 points; Category B - none (no monograph); Category B4 - 10 papers and 240 p. - in referenced and indexed journals, selected by the candidate as the equivalent of a monograph; Category G7 - 9 publications in referenced and indexed journals; Category and G8 - 8 publications in non-refereed editions or G7 + G8 (total) 239 points. Publication in refereed and indexed journals are 10 different scientific journals - Forest Science (2) and Silva Balcánica (2 ), Ecologia Balcanica (3.), BJSS (3); Balkan Ecology (2) and one publication in the Journal of Geochemical Exploration, Agricultural Science and Technology, BJAS, Procedia Environmental Sciences, Šumarski list and NRSD. Eight publications in non-peer-reviewed publications include conference proceedings and non-peer-reviewed journals.

**4. Main directions in the research work of the candidate and the most important scientific contributions.**

In the attached documentation for the competition, the candidate has given a reference for more significant scientific and scientific-applied contributions in papers, which are clearly divided into scientific and scientific-applied. In the extended habilitation reference are indicated scientific contributions in the following directions -

1. Main characteristics of forest soils in the region of Sandanski and in Lozen mountain.

2. Studies on the sorption properties of soils under forest vegetation. Research had been made on the sorption properties of forest soils under beech plantations in the Central Balkans, Osogovo mountain and Sofia region, influenced by anthropogenic activity. Soils in the city park in the town of Sandanski have been studied.

3. Microbiological characteristics of forest soils - under oak ecosystems from Sofia and Sandanski were studied.

4. Characteristics of soils influenced by anthropogenic activity - urbanized and technogenic from industrial and mining areas in the Sofia region. An assessment of the condition of soils was made 30 years after the biological reclamation of soils by MC "Kremikovtsi". Soils from Baikushev district in Pernik were studied.

5. Characteristics of soils from riparian forests on the islands of the Danube River were studied.

*The most significant scientific-applied achievements and innovation activity.*

1. A vascular experiment was performed with substrates of soils and red oak seeds as well as mixed soils and sludge treatment plant, Increase in growth and improvement of some soil properties was observed. Fertilizers and amendments were used to improve soil characteristics and plant growth. Vascular experiments were performed using mineral and organic fertilizers.

2. Forest vegetation was used for bioremediation, as an opportunity to reduce soil pollution with heavy metals.

#### **5. Citation of the candidate's scientific publications.**

The candidate has indicated 21 citations of publications, 14 citations in scientific publications, referenced and indexed in international scientific databases, 6 citations in monographs and collective volumes with scientific review and in non-peer-reviewed journals with scientific review. 1 citation in a dissertation. The presented materials related to the citations meet the requirements, with 280 points.

#### **6. Participation in scientific and applied projects.**

The candidate was involved in 8 projects. The projects under her managing are 4, three of them are with internal subsidy to BAS and one with bilateral cooperation between BAS and RAS - EBR. She had participated in one project funded by the Research Fund of the Ministry of Education and Science of Bulgaria. She was participant in 3 international projects, 2 of which were COST and one bilateral with BAS with RAS. 205 points from project participation fully covers the requirements.

#### **7. Teaching activity (supervisor / consultant for doctoral students, student training, etc.)**

The candidate was lecturer in the Erasmus program at Santiago de Compostela University - Lugo, Spain - ERASMUS program (2015) - 2 lectures.

1. Agroforestry in Bulgaria past and perspectives

2. Soil resources in Bulgaria and Sustainable management

There is no information about lectures with bachelors, masters, and Ph. D students .

#### **8. Assessment of the candidate's personal contribution.**

Of all the publications submitted for the competition (27), the candidate has six single publications. She is first author of the most of papers (19), she is second author in 2 issues and the third and next author in 3 issues. That proves the personal contribution of the candidate in the publishing activity.

#### **9. Critical remarks and recommendations.**

I have no critical remarks, except for some insignificant ones - 35 papers were given in the summarized information but publications for participation in the jury are 27 papers, that is a little confusion in the final summary. Also, citations in dissertations are no longer. I want to

recommend that candidate should participate and publish in monographs.

**10. Personal impressions.**

I know personally the candidate assistant professor Vanya Kachova with whom we have one publication. She is well acquainted with the research on the Technogenic and Anthropogenic soils in the cities of Sofia and Pernik. She works mainly on the field of soil pollution, soil sorption properties as well as the content and composition of soil organic matter. She is excellent scientist in soil research, laboratory analysis and article publication.

**11. Conclusion.**

My overall assessment of the candidate for this position is **POSITIVE**.

In connection with the above, I propose Assistant Professor Vanya Georgieva Kachova, PhD - **TO BE ELECTED** as "**ASSOCIATE PROFESSOR**" in the professional field 6.1 Plant Growing, scientific specialty Soil Science.

Date 29.07.2021

Member of S.J:

(Assoc. Prof.. Biser Hristov, Ph.D.)