Merits of Todor Vasilev to Promote Physical Knowledge

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Abstract. Creative activity of Todor Vassilev has exposed in present work. He realised it in the secondary and university education and research. Todor Vassilev have great success in optics and physics of polymers. He is an author of a row books on optics and textbooks on physics.

During the first half of the 20 century many eminent scientists – physicists received higher education in the Faculty of Physics and Mathematics at the Sofia University "*St. Kliment Okhridsky*" and later developed and confirmed education and research in different fields of physics and technics. Such scientists are Sazdo Ivanov (1899 – 1997), Stoyan Petrov(1905 – 1991), Dr. Nikolay Karabashev (1908 – 1976), Lubomir Krastanow (1908 – 1977), Emil Djakov (1908 – 1978), Assene Datzeff (1911 – 1994), Christo Christov (1915 – 1990), Pavel Markov (1918 – 1998), and Milko Borissov (1921 – 1998). I would like to emphasize the valuable and essential merit of Todor Vasilev* (1911 – 1984) for development, enforcement and dissemination of physics in Bulgaria during the 20 century.

Pedagogical activity of Todor Vasilev in the region of secondary and university education on physics has essentially appreciated, as well as his scientific and research activities in optics and physics of polymers.

Todor Andreev Vasilev (19 February 1911 – 11 March 1984) was born in Smolyan when the town has not yet been a part of Bulgaria. He graduated secondary school in Asenovgrad, receiving for his exhibited mathematical capabilities the name "*Pythagoras*". After graduating secondary school, Todor Vasilev studied physics in the Faculty of Physics and Mathematics at the Sofia University from 1931 to 1935. Besides physics, he had a special preference for mathematical knowledge and attended the lectures of prominent mathematicians – Kiril Popov, Lyubomir Chakalov, Ivan Tsenov, Nikola Obreshkov. Todor Vasilev attended also the lectures of Assen Zlatarov because he was fascinated by his scientific erudition in applied chemistry. After graduation in 1935, Todor Vasilev taught physics in many towns of the country – Panagurishte, Karlovo, Shumen, Plovdiv, and Chirpan. Finally in 1942, for his fruitful pedagogical activity Ministry of Education appointed him for a teacher of physics at the V Boys` School "*Vasil Levsky*" in Sofia. I would like to remark that his lessons in different areas of physics were excellent. He received the nickname "*Bunker*", accompanied even a song for his strictness and rigidity. Presenting physics lessons by remarkable manner and creating a circle on physics, he attracted many of his students as Stefan Kanev, Grigor Baev, Dimitar Damyanov, Kroum Kolentsov and Ivan Kalapov to study physics. I should mention that his students were the poet Pavel Matev and physicists Jelju Jelev, Vasil Hristov, Ivan Uzunov etc [1-2].

His pedagogical and methodological activity received appreciation. Georgi Nadjakov attracted him for co-author of textbook on physics, part three "*Magnetism and electricity*" for seventh secondary grade (1945), which had 13 editions.

Georgi Nadjakov appointed Todor Vasilev to assistant professor in his department of experimental physics at the Faculty of Physics and Mathematics of the Sofia University from 1946 to 1952. Todor Vasilev was also a demonstrator of the Georgi Nadjakov's lectures. Simultaneously he leaded practical exercises and seminars on experimental and theoretical physics.

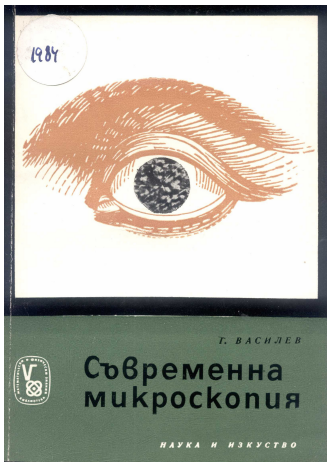
Georgi Nadjakov sent his assistant Todor Vasilev to specialize in France in 1949. Todor Vasilev studied physical optics unther leadership of Professor Moris Franson in the Institute of Optics in Paris 15 months (1949 – 1950).

Returning to the Sofia University, he held a course on calculation optics in the College of Fine Mechanics and Optics, created by the Ministry of Education for specialists in these areas of science and technics, up to 1952.

Todor Vasilev was elected for associate professor in the Faculty of Food and Tobacco Industry at the High Agricultural Institute in Plovdiv in 1951. His versatile educational, research and organizational activities in Plovdiv began with this.

Todor Vasilev became head of the Department of Physics at the newly established High Institute of Food and Tobacco Industry in 1953. He created a laboratory for fundamental research in optics, thermodynamics, and theoretical physics.

A High Natural and Mathematical Institute with specialty "*physics*" opened door in Plovdiv in 1961. Since the next 1962, it became University in Plovdiv. Todor Vasilev was a vice-rector in it. He has a large merit for opening the new departments in different areas of physics – theoretical (1962), nuclear (1963), technical (1963) and methodical physics (1964). In 1974, Faculty of Physics became independent, and Todor Vasilev was the first dean over there. He led also a research team on physics of polymers. Conducting interferometric and electrometric researches on the properties of the thermo-electrets they obtained new type of electrets, which they called cryo-electrets.



Professor Todor Vasilev contributed many physicists to become scientists in Plovdiv. These are A. Atanasov, N. Balabanov, M. Mihaylov, S. Mirchev, K. Ivanov, P. Kartalov, D. Shtarbova, V. Lyutskanov, M. Mitrikov etc. They continued their efforts to develop and stabilise the Plovdiv scientific school of physics.

Todor Vasilev together with his colleagues conducted scientific research in many areas of physics – physical and geometrical optics, theories of phase diffraction gratings, nuclear physics, magnetostatics, physics of polymers and electrets.

Todor Vasilev is the author and co-author of more than 90 scientific papers mainly in optics and physics of polymers, published in our and foreign magazines and proceedings. Beside mentioned above secondary school physics textbook, he is author of four university textbooks on general physics, publishen in Sofia: *Manual for demonstrations on physics* (1950); *Contemporary microscopy* (*Phase-contrast and interference microscopes*) (1966). He is also co-author with Moris Franson of the book *Studies of defects and homogeneity of transparent media by the method of the cast shade* (1966). He has a series of methodical papers also.

Todor Vasilev was a teacher, scientist and organizer of physics. He contributed physics to develop and grew in the University of Plovdiv. In that reason, we deservedly call him father of the Plovdiv University physics [3-5].

Translated by A. Karastoyanov

Reference

* In February 2011, 100 years elapsed since the birth of Todor Vasilev.

1. Г. **Мекишев**, 90 години от рождението на проф. Тодор Андреев Василев, *Светът на физиката*, 24(2) с. 161 (2001).
2. Д. **Христов** (ред.), *Физиците, завършили Физико-математичиеския факултет на Софийския университет "Св. Климент Охридски" 1927 – 1963*, София (2005) с. 9.
3. Н. **Балабанов**, Професор Тодор Василев – родоначалник на Пловдивската университетска физика, *Развитие и разпространение на физикоматематическите знания в България*, Пловдив (2005) 23-29.
4. Н. **Балабанов**, Ролята на академик Георги Наджаков в създаването на пловдивската университетска физика, *Разпространение и развитие на физико-математическите знания в България*, ИФТТ-БАН, София (2007) 122-123.
5. Л. **Спасов**, Г. **Камишева** (съст.), *Милко Борисов за себе си и другите за него*, Акад. изд. "Проф. М. Дринов", София (2008) с. 185.