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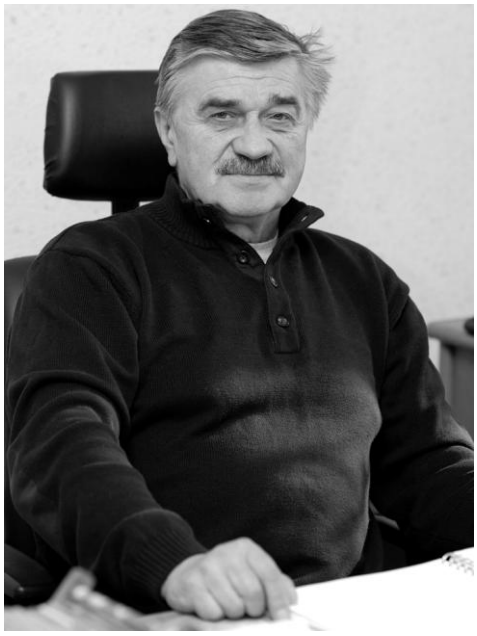
Editorial



Dear colleagues,

Semiconductor physics and related scientific fields face a number of threats and challenges that have been exacerbated by the spread of the coronavirus epidemyc in 2020. Rather full observation of semiconductor market was made by Bill Jewell in "Semiconductor Recovery in 2020?" from 02-24-2020, "COVID-19 and Semiconductors" from 03-18-2020 and "Is the Worst Over for Semiconductors?" from 05-27-2020.

The main questions discussed in these articles are as follows:

- How long will the semiconductor market decrease?
- What countries and companies plan to overcome the recession and when?
- What areas of semiconductor market have the best position?

Briefly, the answers could be formulated in some words: "There is a big difference between countries, companies and semiconductor market areas".

According to the opinion of Mr. Khushal Bombe, Meticulous Research, the current COVID-19 pandemyc will inevitably leave a serious impact on the demands for semiconductor devices. He indicated that favorable government policy and initiatives including reduction and ease in interest rate, tax exemptions and number of financial packages, automation in manufacturing, and growing demand of medical devices during this health emergency are showing some positive signs.

V. Lashkaryov Institute of Semiconductor Physics, NAS of Ukraine, meets these challenges and develops sensors and devices for diagnostics and monitoring reactions "body-antibody" by using plasmon resonance. We could tell about some devices, for example:

– PLASMON-5 and PLASMON-6 are computer-controlled spectrometers based on the surface plasmon resonance. These devices are intended for realization of real time biokinetic, immunosensing and biosensing techniques and can be used in veterinary medicine, medicine, biotechnology.

– Leukoplasm-2 is aimed at diagnostics of infectious diseases in veterinary medicine and is an efficient alternative to traditional, longer and more expensive methods. Due to its advantages, Leukoplasm-2 makes it possible to constantly monitor the condition of animals. The autonomy and ease of maintenance of the express analyzer allows it to be used in the field on farms, district and regional veterinary institutions.

Last year, we already published the article "Diagnostics of cattle leucosis by using an biosensor based on surface plasmon resonance phenomenon" as illustration of one of these devices application.

We invite all of you for cooperation and collaboration both as readers and authors, as well as reviewers.

Sincerely yours,
Alexander Belyaev.