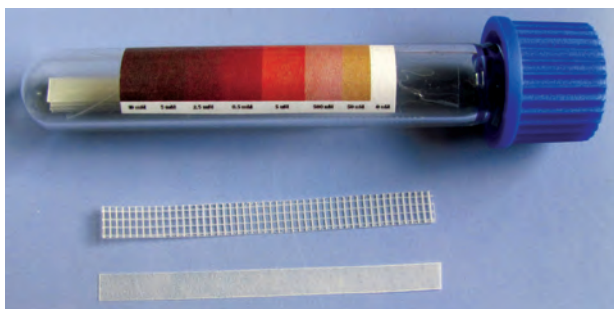
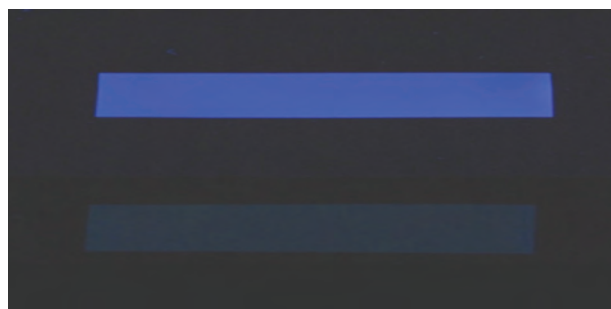


## BIOSENSOR SYSTEMS FOR DETECTION OF PHENOL AND AFLATOXIN B1 BASED ON MOLECULARLY IMPRINTED AFFINITY MEMBRANES



Colorimetric sensor system for phenol detection



Fluorescent biosensor system for aflatoxin B1 detection: MIP-membrane after incubation with sample containing aflatoxin B1 (upper) and without aflatoxin B1 (lower)

### Specification

Bioselective element	Analyte	Detection limit	Linear dynamic range	Storage stability, months	Time of analysis, min	Standard deviation, %
Phenol-selective MIP membranes	Phenol	50 nM	50 nM–10 mM	18	30	≤10
Aflatoxin B1 selective MIP membranes	Aflatoxin B1	14 ppb	14–200 ppb	18	30	≤10

### Areas of Application

To be used in special laboratories for monitoring of environment, foodstuffs, and drinking water

### Stage of Development. Suggestions for Commercialization

IRL6, TRL5  
Small series of molecularly-imprinted polymer membranes selective to phenol and aflatoxin B1 has been produced and tested for analysis of real samples. The developed sensor systems are ready for implementation

### Advantages

The developed systems have no counterparts in the world. They provide cheaper, faster, more sensitive and highly-selective analysis as compared with the existing Ukrainian and foreign methods for phenol and aflatoxin detection. The systems are easy-to-use, provide real-time analysis, their application does not require highly skilled specialists

### IPR Protection

IPR3

### Contact Information

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