

The comparative characteristics of the preparations received by Iodine-125 incorporation into molecules of polyclonal and monoclonal antibodies

The name of a preparation labelled with Iodine-125	Radio-chemical purity, %	Maximal binding	P/O	Sensitivity of «IRMA- HBsAg- I125»
Polyclonal antibodies	99.0 ± 0.5	36.3 ± 1.3	64.5	5 ng/ml
Monoclonal antibodies	99.5 ± 0.5	43.0 ± 0.5	83.4	1 ng/ml

The testing results of the modified test system have shown that developed immunoradiometric kit of reagents "IRMA-M-HBsAg-I125" is characterized by higher sensitivity, reproducibility and specificity in comparison with "IRMA-HBsAg-I125".



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DIAGNOSTIC COMPLEX FOR SUBCRITICAL SYSTEM

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Investigations of various models of subcritical reactors carried out in JINR on a proton bunch of the Synchrotron/Nuclotron enter into the program of works on creation of installation for industrial realization of an electronuclear way receptions of energy both recycling of active industrial and weapon products, including, radioactive wastes of atomic power stations and metallurgical manufactures [1].

For realization of researches under the program of study of the mechanism of energy generation and transmutation in subcritical electronuclear reactor, connected with proton the accelerator, we develop the project of detection (automated information-measuring complex) allowing to ensure diagnostics in mode of real time rapidly occurring in reactor of processes. The complex consists from optical, infra-red and spectrometer detection of devices recording seen, infra-red, X-ray and gamma-ray radiation [2].

References

1. Tolstov K.D. - Report N 18-92-303. JINR. Dubna, 1992.
2. Mal'tsev A.A. - Phys. Part. Nucl. Vol. 27, No 3 (1996) 330.



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BIOMEDICAL APPLICATIONS OF THE NUCLEAR MICROPROBE: A REVIEW

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After fifteen years' experience by worldwide research groups in the use of ion microbeams for material characterization at the microscopic level, the nuclear microprobe is now recognized as a powerful tool for routine chemical microanalysis and elemental mapping in the biomedical field. Numerous applications in biomedicine take advantage of its