mechanical injuring, and at the thrombosis it plays a negative part, occluding vessels, injured by different pathologic processes.

ELLIPSOMETRIC INVESTIGATIONS OF INFLUENCE OF PARAMETERS OF HETEROGENEOUS LAYERS ON THEIR OPTICAL PROPERTIES

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Investigation of physical and chemical properties of heterogeneous near-surface layers is connected with ambiguity of the results obtained.It depends on their structure features. For amorphous alloys the nonuniform structure in depth or in chemical composition and areas of excess unconfined space, change of concentration of atoms into near-surface layer are typical. It is well-known that optical properties depend on the structural qualities. To describe structure of amorphous alloys one can use a model: "amorphous substrate – effective film". Analysis of near-surface layer structure explains the structure of amorphous alloys. Therefore, it is necessary to integrate as methods studying volumetric properties of amorphous alloys as their near-surface layers for correct interpretation of experimental results.

In this paper near-surface layers $Fe_{80}AM_5B_{15}$ (AM = Ti, V, Cr, Mn, Fe, Co, Ni) have been investigated by spectral ellipsometric method. The executed modeling of density energy spectrum of electronic conditions and optical conductivity $\sigma(h\nu)$ explains experimental spectral dependences of optical conductivity of alloys. Values of temperatures of crystallization AMAs and values of $\sigma(h\nu)$ in range of energy from 1 to 2 eV have opposite character of dependences. Alloys will have the greatest thermal stability, when they have the least value of $\sigma(h\nu)$ that confirms Nagel-Tauka criterion.

Characteristics of near-surface layers of alloys with different admixture material were obtained by solution of inverse task of ellipsometry for model of optical structure: a thin film plus a homogeneous substrate. Comparison of the actual measured data with predictions of the assumed model allows making conclusions about

possible use of the offered mathematical model for solution of inverse task of ellipsometry.

SHADOW ECONOMIES: SIZE, CAUSES, AND CONSEQUENCES

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Shadow or underground economic activity is a fact of life around the world, and there are strong indications that it is increasing. Most societies attempt to control these activities through various punitive measures or through education, rather than through reforms of the tax and social security systems which could improve the dynamics of the official economy. Gathering information about underground economic activity is difficult, because no one engaged in such activity wants to be identified. Obtaining accurate statistics about the allocation of a country's resources in the shadow economy is important for making effective economic policy decisions. Hence, it is crucial to know who is engaged in the shadow economy, and with what frequency and magnitude such activities occur.

The size, causes, and consequences of the shadow economy vary for different types of countries, but some comparisons can be made which might be useful for social scientists and politicians, who must deal with this phenomenon sooner or later.

Attempts to measure the shadow economy first face the problem of defining it. One commonly used working definition is: all economic activities that contribute to the officially calculated (or observed) gross national product but are currently unregistered.

A main focus of this survey is to give a comprehensive summary of available data on the size of the shadow economy, since there has been no consistent comparison of estimates on various countries generated using similar methods. An overview of some results, estimated with indirect or "indicator" methods, which provide approximate magnitudes of the size and development of the underground economy, defined as productive value-adding activities that should be included in the official GNP.