PAS in liquids and solutions: Application to detection of carcinogens and anticarcinogens

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It is recognized that one of the main causes of cancer is chemical carcinogens. The review considers both biological and physicochemical methods for determining the carcinogenic activity of substances. Physicochemical methods are based on the fact that most carcinogens are, in particular, effective acceptors of electrons generated by ionizing particles as they pass through a substance that simulates the intracellular environment. It was shown that the complete inhibition of the formation of the positronium atom by the test chemical compound can serve as an indication of its carcinogenic properties. The similarity of the positron method with the radiation-chemical test proposed by G. Bakale using nanosecond pulsed radiolysis devices is noted. The advantages of the positron approach over the Bacall method are reduced to simplicity, speed and economic benefit. The simplest model is proposed for interpretation of the carried out experiments on Ps inhibition and antiinhibition.