SPECIFICATION

THE NAME OF THE INVENTION

~~PLASMONIC CHIP, AND CANCER DISEASE DIAGNOSIS METHODS RESPECTIVELY EMPLOYING FLUORESCENT IMAGE AND RAMAN SPECTROSCOPY AND EACH USING SAME~~

The technical field of the invention
[0001]

The present invention relates to a fluorescence image observation chip (plasmonic chips) with a fluorescence microscope and a method of diagnostic analysis for cancer diseases by observation of auto fluorescence and Raman spectroscopy for body fluids, in particular cancer-related substances and tumor makers absorbed with the plasmonic chip and enhanced by localized surface plasmon resonance (SPR).

The background of the invention

[0002]

In the field of cancer diagnosis and therapeutics, as cancer-related substance, methylated DNAs and their proteins bound to histones (nucleosomes and chromatin) has drawn much attention. It is important for a simple diagnosis and early detection of the presence of cancer .to absorb or capture them and analyze their crystallization or aggregation state by fluorescence image diagnosis and SERS analyzation where the chemical modification of the DNA methylation status and the histone code state can be detected by means of laser irradiation on the crystal.

[0003]

Information for making all the organism cells are included in the DNA. The DNA, is composed of a unique sequence of the four bases, adenine (A), guanine (G), thymine (T) and cytosine (C). These bases are pairings between A and T as well as G and C on the two strands to form a DNA double helix. Chains of these pairs, stores all the information into regions called genes to make grouped

SPECIFICATION

THE NAME OF THE INVENTION

A PLASMONIC CHIP AND A DIAGNOSTIC METHOD FOR OBSERVATION OF A FLUORESCENCE IMAGE AND RAMAN SPECTROSCOPY OF CANCER-RELATED SUBSTANCE ON THE PLASMONIC CHIPS

The technical field of the invention
[0001]

The present invention relates to a fluorescence image observation chip (plasmonic chips) with a fluorescence microscope and a method of diagnostic analysis for cancer diseases by observation of auto fluorescence and Raman spectroscopy for body fluids, in particular cancer-related substances and tumor makers absorbed with the plasmonic chip and enhanced by localized surface plasmon resonance (SPR).

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