

FORM 2

THE PATENTS ACT, 1970

(39 of 1970)

&

THE PATENTS RULES, 2003

COMPLETE SPECIFICATION

(See sections 10; rule 13)

TITLE OF THE INVENTION

METHOD OF ANALYZING OR GENERATING SEQUENCES OF ENCODING
ELEMENTS

APPLICANT

NAME: MRS.K.KOWSALYA, L. VADIVUKARASI, M.SATHISH KUMAR, ARYA
SHAH, MANJUL SINGLA, DR SANTOSH SINGH, DR. PRAMOD KUMAR PATEL,
PROF SANJEEV KUMAR TRIVEDI, DR. ASHOK KUMAR BATHLA, NIVEDAN
MAHATO, L.KARTHICK

NATIONALITY: INDIAN

METHOD OF ANALYZING OR GENERATING SEQUENCES OF ENCODING ELEMENTS

BACKGROUND

Technical Field

[0001] The embodiments herein generally relate to a method of analyzing or generating sequences of encoding elements.

Description of the Related Art

[0002] A method for the proteins performs and facilitate a wide range of biological functions, and they are crucial to cell biology and physiology. Due to the considerable diversity added by post-translational modifications (PTMs), the repertoire of distinct protein molecules is considerably more complicated than the transcriptome. The transponder is energised by the RF electromagnetic field, which enables the transponder to respond to the reader by reflecting the received signal back and altering the field—a process known as backscattering. When a transponder is active, it may react to the electromagnetic field by sending a self-powered, independently generated return signal to the reader. A waveguide element array that has a first side and a second side may be part of an energy device. The array of waveguide elements may be designed to direct energy through a variety of energy propagation paths that pass through a variety of energy locations on the first side of the array. An energy encoding component with the ability to control energy propagation along the various energy propagation channels may also be included in the energy device. The two-beam interferometer principle is applied in the Fourier transform technique. A beam splitter divides the light coming from the item to be measured into two separate beams, which are then combined, reflected by a stationary mirror and a moving mirror, and recorded by a detector. A module for setting a quantization parameter

that is used when performing inverse quantization on the quantized data produced by the decoding module for an encoding element that is a component of an encoding process and is encodes image data at a level lower than a reference encoding element at a reference level.

[0003] The system due to a number of significant difficulties, using affinity-based assays is frequently challenging. Multiplexing the readout of a group of affinity agents to a group of homologous macromolecules is a substantial issue. One transponder may be activated simultaneously by an interrogating electromagnetic wave. Because each of the many transponders may simultaneously transmit reply signals to the reader, this simultaneous activation of multiple transponders could result in collisions or communication failures. The energy encoding element may significantly prevent energy from moving along an unhindered energy propagation channel across each energy location in the first and second regions. A volumetric energy field defined by the 4D plenoptic function may contain at least a portion of the unhindered energy propagation path across the first and second waveguide elements. By scanning the entire camera or the item to be measured perpendicular to the slit direction, two-dimensional spectral information is collected in this method because only one-dimensional information of the object can be retrieved at a time. The quantization difference parameter could represent the difference in values between the quantization parameters specified for the current encoding element and the quantization parameters set for the encoding element that is decoded first during the decoding process.

[0004] The method with the reverse phase HPLC is used to analyse the cleaved cyclic ATZ-amino acid after it has been transformed into a PTH-amino acid derivative. Until all or some of the amino acids making up a peptide sequence have been discovered and deleted from the N-terminal end, this process is repeated iteratively. For instance, consider RFID printer-

encoders. RFID printer-encoders are machines that can print and encode a stream or sequence of labels with transponders inside. Another application where unfavourable repeated transponder activation may occur acutely is a conveyor system. Energy propagation paths through energy locations in the first region may be substantially suppressed by the energy encoding element, while energy propagation paths through energy locations in the second region may be substantially uninhibited. At a later time, instant, the energy encoding element may also substantially suppress energy propagation paths through energy locations in the second region. A technique utilizing an AOTF acousto-optic tuneable filter. A linear polarizer, a birefringent filter, and a liquid crystal cell are three components that can be assembled in different stages to create a liquid crystal tuneable filter. The only way to filter out light of superfluous wavelengths and extract just light of arbitrarily particular wavelengths is through voltage control. The image processing device may further comprise a receiving module that receives the encoded data stream and data on the minimum size of the encoding element, the setting module being able to set the quantization parameter for the current encoding element in accordance with the data on the minimum size of the encoding element received by the receiving module.

SUMMARY

[0005] In view of the foregoing, an embodiment herein provides a method of analyzing or generating sequences of encoding elements. A method of creating a second order extended recording tag by transferring the data from the second coding tag to the first order extended recording tag, then analyzing the resulting tag. The process to reduce unintended multiple transponder activation, among other things, by using less space, money, and weight than are typically involved with encoding systems that use other types of EMF collision control

techniques or shielding components. Embodiments of the current invention can be set up to satisfy the encoding pitch, encode a considerably wider variety of tag kinds, and support transponder placement independence. An energy device subsystem comprising a first energy device having a first plurality of energy locations and a second energy device having a second plurality of energy locations is one possible component of an energy system. The sensor consequently captures an image that is encoded and multiplexed with regard to the wavelength axis. By using compressed sensing, it is possible to reconstruct several images with various wavelengths from the multiplexed images. The transmitting module is set up to transmit data on the minimum size of the encoding element set by the installation module. The installation module is programmed to set data on the minimum size of the encoding element, indicating the minimum size of the encoding element for which the quantization difference parameter is set.

[0006] The system with the di-tag molecule consists of an encoder sequence derived from the coding tag, a unique molecular identifier derived from the coding tag, an optional spacer derived from the coding tag, a universal priming site derived from the coding tag, and a compartment tag derived from the recording tag. The ground plane, a first dielectric substrate, a conductive strip, a terminating load, a second dielectric substrate, and a shield make up the encoding element in this embodiment. The ground plane is close to the first dielectric substrate. In close proximity to the first dielectric substrate, there is a conductive strip that runs from the input end to the loaded end and has at least one loop-shaped section. The first and second energy devices may be superimposed in a relative orientation such that the arrangement of the first plurality of energy locations and the arrangement of the second plurality of energy locations are superimposed, resulting in a third plurality of energy locations at the energy

location surface, the number of which is greater than the sum of the first and second plurality combined for each non-bounding region. According to one aspect of the disclosure, an imaging device consists of a first encoding element with a plurality of regions arranged in two dimensions on the optical path of light incident from an object, and an imaging element placed on the optical path, where each of the plurality of regions includes a first region and a second region, and wavelength distributions of light transmittance of the first region are distinct from one another in a first wavelength. The transmitting module is set up to add the minimum size of the encoding element specified by the installation module to the syntax of the encoded data stream produced by the encoding module as the header of the data layer.

[0007] A method for sequencing of nucleic acids can be done using synthesis, ligation, hybridization, polony sequencing, ion semiconductor sequencing, or pyrosequencing. The system may also have one or more switching components that are designed to connect the reader only when necessary to the various encoding components. A processor that is programmed to connect one of the several encoding elements to the reader through one or more switching elements dependent on the transponder's location may also be part of the system. The split aperture energy encoding elements are further configured to limit energy propagation along the plurality of energy propagation paths through the plurality of apertures of each waveguide element. The first and second sets of apertures are formed in such a way that a plurality of apertures are formed for each waveguide element. At least one of the first wavelength band and second wavelength band is the third wavelength band and the second wavelength band, and each of the highest values in the third wavelength band and the fourth wavelength band is 0.5 or more. The image pickup device superimposes the elements of the first, second, third, and fourth wavelength bands of the light that has passed through the first

encoding device, as opposed to the four-wavelength band. The setup module is set up to set the quantization parameter for this encoding element to be lower than the encoding reference element, with the quantization difference parameter for the encoding element set to zero.

[0008] These and other aspects of the embodiments herein will be better appreciated and understood when considered in conjunction with the following description and the accompanying drawings. It should be understood, however, that the following descriptions, while indicating preferred embodiments and numerous specific details thereof, are given by way of illustration and not of limitation. Many changes and modifications may be made within the scope of the embodiments herein without departing from the spirit thereof, and the embodiments herein include all such modifications.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The embodiments herein will be better understood from the following detailed description with reference to the drawings, in which:

[0010] Fig. 1 illustrates a method of a method of analyzing or generating sequences of encoding elements according to certain embodiments herein; and

[0011] Fig. 2 illustrates a long and narrow dipole-type transponder according to certain embodiments herein.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0012] The embodiments herein and the various features and advantageous details thereof are explained more fully with reference to the non-limiting embodiments that are illustrated in the accompanying drawings and detailed in the following description. Descriptions of well-known components and processing techniques are omitted so as to not

unnecessarily obscure the embodiments herein. The examples used herein are intended merely to facilitate an understanding of ways in which the embodiments herein may be practiced and to further enable those of skill in the art to practice the embodiments herein. Accordingly, the examples should not be construed as limiting the scope of the embodiments herein.

[0013] Fig. 1 illustrates a method of a method of analyzing or generating sequences of encoding elements according to certain embodiments herein. A method for using multiple cycles of binding agents' antibodies, anticalins, N-recognins proteins ATP-dependent Clp protease adaptor protein (ClpS), aptamers, etc. and variants/homologues thereof, the methods described herein interact with an immobilised protein that is co-localized or co-labeled with a single or multiple recording tags. The dielectric substrates, may be created from a variety of dielectric materials, such as, but not limited to, plastics, glasses, ceramics, or mixtures like Roger's materials, Isola materials, or woven glass reinforced epoxy laminate, also known as "FR4" or flame resistant 4. Another illustration of the dielectric material is air. These values are sufficient to comprehend the systems and procedures that stimulate the experience of virtual energy propagation, despite the fact that there are numerous and incongruous ways to assess these sensory acuties. The approaches described here combine practical product considerations with the biological resolution constraints of sensory systems. There are numerous ways to think about design resolution. The wavelength range of the numerous light-transmitting regions in one of the numerous second encoding elements matches that of the numerous light-transmitting regions in the opposite one of the numerous second encoding elements. The imaging apparatus described in item, which differs from. The GOP structure the structure of the picture Group is used to organize the frames for encoding in the reorder buffer of the screen picture, which reorders the stored image with frames organized in the sequence

in which they are presented.

[0014] The process of the coding tag is made up of a spacer sequence that hybridizes to the complementary spacer sequence on the recording tag to facilitate the transfer of coding tag information to the recording tag, primer extension, also known as polymerase extension, an encoder sequence that provides identification information for the binding agent, and an optional UMI. The encoding element, which is close to the media feed path, broadcasts RF communication signals, and the reader is set up to produce and transmit those signals. The reader and the encoding element may collectively be referred to as constituting at least a portion of a communication system for the purposes of the current specification. The active region of the apparatus may be powered and interfaced by driver and electronics, with its dimensions denoted by the x and y arrows. Incorporating flex cables into the device will further reduce its mechanical footprint. This device does not account for wiring and mechanical construction to drive, power, and cool the components. According to the image produced by the imaging element, the geographical distribution, wavelength distribution, and second encoding element's wavelength distribution of light transmittance, the first code is determined. The image read from the screen image reordering buffer is subtracted by the arithmetic module from the intra prediction module or the motion prediction/compensation module, and the difference data is output to the orthogonal transform module.

[0015] The method for performing a straightforward protein immunoassay, which involves encoding cognate binders in DNA and sequencing the resulting extended recording tag. Prior to cyclic binding analysis, the proteins can be pooled and sample barcoded indexed using recording tags, considerably boosting sample throughput and saving money on binding reagents. This method effectively performs reverse phase protein assays (RPPA) in a digital,

easier, and more scalable manner. The terminated uniform stripline transmission line that creates a loop is the foundation of the encoding element. The shield, first dielectric substrate, first conductive layer, conductive strip, second dielectric substrate, and second dielectric substrate make up the layered structure of the encoding element. A transmission line is defined by the ground layer which may contain a co-centered hole and the conductive strip put together. By bonding or using other mechanical procedures to install the repeater elements, additional energy repeater elements can be serially coupled to the same base structure thanks to the mechanical design of the smooth energy surface. To create the resulting continuous energy surface, certain embodiments of each repeater element may be fused, bonded, attached, press-fit, aligned, or otherwise attached together. A spectroscopic system's encoding element that produces images for each of a number of wavelength ranges that are dissimilar to one another has a number of two-dimensionally arranged regions, two or more of which have different spectral transmittances, with the spectral transmittance in each of the two or more regions being equal to the number of wavelength ranges with local maxima in at least two of the encoding elements. The lossless encoding unit encodes a quantized transform coefficient and creates a header information area of encoded data by multiplexing various informational sections, including a filter coefficient, intra prediction mode information, inter prediction mode information, and a quantization parameter.

[0016] Fig. 2 illustrates a long and narrow dipole-type transponder according to certain embodiments herein. The system is also possible to invert the orientation of the extended recording tag and coding tag so that the 3' end of the coding tag or counterpart is attached to the 5' end of the recording tag. In the example given, the complex is stabilized to allow precise chemical ligation of the recording tag to the coding tag complementary strand via hybridization

between complementary helper oligonucleotide sequences on the recording tag recording helper and the coding tag. The second encoding element may have a wide bandwidth and the ability to tolerate mechanical and electrical parameter deviations because the characteristic impedance of the transmission line of the second encoding element or may be primarily equal to the impedance of the reader and the terminating load. First encoding element are examples of conventional loop antennas where a mismatched port impedance frequently exists or calls for a matching network and/or a limited bandwidth. A shield could be included in the aforementioned embodiments. The second repeater surface is configured with a well-defined surface profile on both the first and second surfaces, with energy passing through it filling a substantial ± 10 degrees with respect to a normal to the surface profile across the second repeater surface. The first repeater surface has a different area than the second repeater surface, resulting in positive or negative amplification. A spatial modulation encoding element with a plurality of light-transmitting areas and a plurality of light-shielding regions in a spatial direction placed on the path of light passing through the narrowband encoding element. Additionally, lossless encoding module 106 receives motion vector information showing a calculated motion vector from the motion prediction/compensation module as well as inter prediction mode information indicating a received inter prediction mode.

[0017] The method with the universal priming sequence, an encoder sequence for the identity of the amino acid, a compartment tag, and an amino acid UMI are all components of the coding tag. The recording tag UMI is used to map the ditags back to the original molecule after information transfer. The proteome is divided into droplets in Step a using barcoded beads. On the bead surface are peptides connected to recording tags that include compartment barcode data. The reader's power level and rules or regulations that set maximum power levels

are just two examples of the elements that may be used to determine acceptable power levels. In addition, relative power levels—that is, whether the encoding element from its position can successfully communicate with the transponder at a power level compared to other positions or other types of encoding elements—may be taken into account as an alternative to focusing on a specific power level. Due to the total internal reflection properties of the discrete array of cores in conventional multi-mode and multi-core fibres, the relayed image may be pixelated in nature. Any crosstalk between the cores would reduce the modulation transfer function and amplify the blur. The narrow-band coding element of item has a wavelength that is the same across all of the light-transmitting areas and across all of the light-shielding regions that are situated between the two closest light-transmitting regions. imaging system. It is feasible to accomplish the quantization process and inverse quantization while carrying out this type of procedure using AVC encoding, not by separation but just through a shift operation.

[0018] The process of creating extended coding tags from a combination of emulsified peptide recording tags. The dissociated peptide complexes from are combined with PCR reagents to form droplets, with a single peptide complex typically present in each droplet. The recording tag associated with the peptide is amplified, fused to multiple binding agent coding tags or coding tags of covalently labelled amino acids, extended via primer extension to transfer the peptide UMI and compartment tag information to the coding tag, and amplified from the resulting extended coding tags using a three-primer fusion PCR approach. As a small loop-type transponder passes over the encoding element, the first loop-shaped portion may be positioned so that the centre of the first loop-shaped portion is aligned with the centre of the small loop-type transponder and is edge justified. Meanwhile, the second loop-shaped portion may be positioned so that the centre of the second loop-shaped portion is aligned with the

centre of a large dipole-type transponder. The repeater elements exhibiting transverse anderson positioning may include a plurality of at least two different component engineered structures in each of three orthogonal planes arranged in a three-dimensional grid, the plurality of structures forming a channel of similar values of material wave propagation properties in longitudinal planes with respect to the transverse planes within the dimensional grid. The procedure, in which the imaging element encodes light from the first narrowband encoding element and the spatial modulation an encoding element, and the latter obtains the encoded light to produce a first pixel signal. The quantization processor 153 receives a quantization value from the quantization parameter calculation module for each sub-macroblock. Additionally, the lossless encoding module receives various calculated quantization parameters from the quantization parameter calculation module and transmits them along with the encoded stream created by encoding the image.

CLAIMS

I/We Claim:

1 1. A method for method of analyzing or generating sequences of encoding elements, wherein
2 the method comprises:

3 contacting the polypeptide with a binding agent that can bind to the polypeptide and
4 includes a coding tag with the binding agent's identification information;

5 activating a second encoding element to encode the transponder after concluding that
6 the first encoding element was ineffective;

7 having energy propagation paths through energy locations in the second region are
8 significantly muted by the energy encoding element, while energy propagation paths through
9 energy locations in the first region are significantly unhindered;

10 obtaining a picture that was taken using an imaging device with an encoding element
11 and an imaging element placed on a light's optical path after passing through the encoding
12 element; and

13 consisting the difference between the current quantization parameter for the current
14 coding unit and the prior quantization parameter for the previous coding unit makes up the
15 quantization difference parameter.

16
17
Dated 26th day of June 2023

A handwritten signature in black ink, appearing to read 'le bye'.

Signature

ABSTRACT

METHOD OF ANALYZING OR GENERATING SEQUENCES OF ENCODING ELEMENTS

5 A method of treating nucleic acid encoding is used in a method for analyzing macromolecules, such as peptides, polypeptides, and proteins. A module for encoding as well as associated systems and parts are offered. The encoding module consists of a number of encoding elements spread throughout an array of columns and rows, as well as one or more switching elements designed to connect the encoding elements to readers in a specific order. The energy encoding
10 element may restrict energy propagation through each of the first and second regions to one of the energy-unsuppressed propagation channels, even when the first and second regions of energy locations overlap and are offset. The conversion coefficient data is quantized based on the currently configured quantization parameter, producing the quantized data, which is then encoded to produce a bitstream with the desired flag.

15