

Innovation 使用結果及心得

使用結果

1. 專利名稱

Scene-aware automatic-exposure control

2. 發明者

Price Douglas, Zhou Xiaosong, Wu Hsi-Jung, Normile James Oliver

3. 專利擁有者

Apple Inc.

4. 節錄專利申請內容

A scene-aware auto-exposure control process stabilizes changes in a camera's auto-exposure settings so as to reduce lighting and color flicker during image capture operations. A metric, referred to as the Modified Adjusted Luminance (MAL) metric, is defined to remain relatively constant as long as the lighting of the scene being captured remains relatively constant. Thus, scene changes such as an object moving into, out of, or around in a scene do not significantly affect the MAL metric's value and do not, therefore, trigger an exposure adjustment. Once the MAL metric indicates a scene's lighting is stable, the camera's auto-exposure operation may be suppressed. As long as incoming frames indicate a stable lighting condition (based on the MAL metric), auto-exposure operation may remain suppressed. When incoming frames result in a substantially different MAL over a specified number of frames, auto-exposure operation may be restored.

5.

1. An exposure control method, comprising:

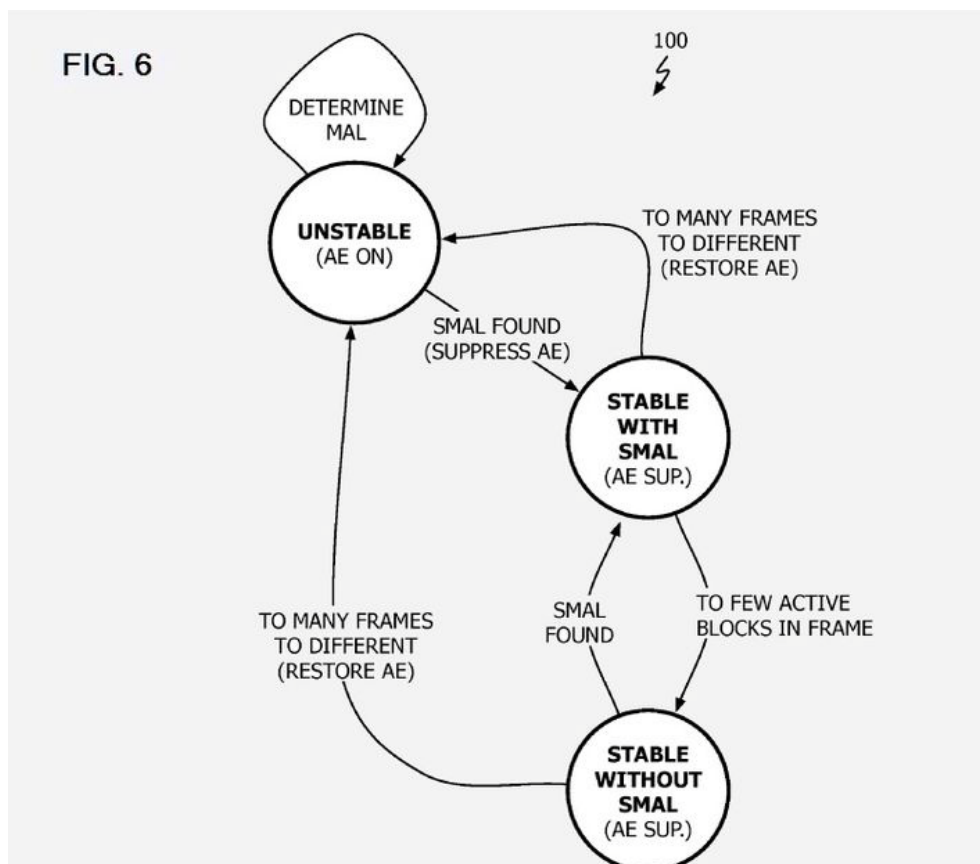
- obtaining a first image having a plurality of blocks;
- obtaining a second image having a plurality of blocks;
- comparing a first plurality of blocks in the first image with co-located blocks in the second image;
- selecting a second plurality of blocks, from the first plurality of blocks, in the first image based the act of comparing;
- calculating a first value of a first metric based on the selected second plurality of blocks; and
- suppressing an image capture device's automatic exposure control operation if the calculated first value is stable with respect to a specified number of prior calculated values of the first metric and, after the act of suppressing

- o obtaining a third image having a plurality of blocks,
- o comparing a third plurality of blocks in the third image with co-located blocks in the first image,
- o selecting a fourth plurality of blocks, from the third plurality of blocks, in the third image based the act of comparing,
- o calculating a second value of the first metric based on the selected fourth plurality of blocks, and
- o restoring the image capture device's automatic exposure control operation if the calculated second value is significantly different from a specified number of prior calculated values for the first metric, each of the specified number of prior calculated values for the first metric having been calculated after the act of suppressing the image capture device's exposure control operation.

6. 專利公布日期/專利號

2011-12-13 / US8077256B1

7. 相關圖示



使用心得：

使用 innovation 其實找了很久。我試過了腳踏車輪胎、刮鬍刀，也找過國外的感冒藥像 Tylenol 和常用的消除肌肉疲勞的 Bengay，但都沒有找到確切的資料。在找刮鬍刀的專利時也出現了搜尋結果當中最早的一篇電動刮鬍刀專利與發明者不同的現象。可能這種比較古老的東西，專利的搜尋比較難以考證，或是我搜尋的方法不夠精確吧！最後我只好找了與 Apple 相關的產品的專利。發現 Apple 好像真的蠻想保護(或著說是占有?)它們自己的一些專利的。

Scifinder 使用成果及心得

1. 搜尋主題：關於有抗癌功效的藥草(中藥)
2. 搜尋關鍵字：anticancer herbal medicine
3. 搜尋到的 reference 共有 708 篇
4. 文獻舉例：

[Natural plant extract tubeimoside I promotes apoptosis-mediated cell death in cultured human hepatoma \(HepG2\) cells](#)

內容簡介

Tubeimoside I (TBMS I), an ext. from Chinese **herbal medicine** *Bolbostemma paniculatum* (Cucurbitaceae) was shown as a potent **anti-tumor** agent for a variety of human **cancers**, but yet to be evaluated for hepatoma that is highly prevalent in Eastern Asian countries including China. Here, we examd. in vitro the cytotoxic effects of TBMS I on human hepatoma (HepG2) and normal liver (L-02) cell lines. We also investigated TBMS I-induced mol. events related to apoptosis in HepG2 cells. The results show that TBMS I **inhibited** the proliferation of both HepG2 and L-02 cells in a dose- and time-dependent manner, but HepG2 cells appeared more sensitive to the agent. When exposed to TBMS I for 24, 48, and 72 h, IC₅₀ for HepG2 cells vs. L-02 cells were 15.5 vs. 23.1, 11.7 vs. 16.2, 9.2 vs. 13.1 (μM), resp. TBMS I induced cell shrinkage, nuclear condensation and fragmentation, cell cycle arrest at the G2/M phase, mitochondrial membrane disruption, release of cytochrome c from the mitochondria, activation of caspase 3 and 9, and shifting Bax/Bcl-2 ratio from being **anti-apoptotic** to pro-apoptotic, all indicative of initiation and progression of apoptosis involving mitochondrial dysfunction. Taken together, these results indicate for the 1st time that TBMS I potently **inhibited** growth in HepG2 cells by mediating a cascade of apoptosis signaling pathways. Considering its sensitivity of HepG2 cells, preferential distribution in the liver and natural product origin, TBMS I therefore may have a great potential as a chemotherapeutic drug candidate for hepatoma.

Tubeimoside 是傳統中藥土貝母的萃取物，應是其活性成分之一。根據行政院中醫藥委員會的介紹，土貝母主要功能為清熱解毒。但卻有學者發現，他的活性萃取物 Tubeimoside 是有

對抗肝癌細胞的功能，是透過引起細胞衰變的方式。

5. 使用心得

發現其實有多種中藥或是其他國家的傳統草藥(有一篇是在說印度草藥 **sanjeevani** 可能有抗癌的作用)都可能會有抗癌的效果。此外，用這樣的搜尋關鍵字似乎不夠恰當。可能應該要縮小範圍，例如改為 **breast cancer herbal medicine**(有 82 個 **reference**)或是改為 **herbal therapy of cancer** 也都會有很多資訊。