

ABSTRACT

LIGHT DETECTION DEVICES WITH PROTECTIVE LINER AND METHODS RELATED TO SAME

Light detection devices and related methods are provided. The devices may comprise a reaction structure for containing a reaction solution with a relatively high or low pH and a plurality of reaction sites that generate light emissions. The devices may comprise a device base comprising a plurality of light sensors, device circuitry coupled to the light sensors, and a plurality of light guides that block excitation light but permit the light emissions to pass to a light sensor. The device base may also include a shield layer extending about each light guide between each light guide and the device circuitry, and a protection layer that is chemically inert with respect to the reaction solution extending about each light guide between each light guide and the shield layer. The protection layer prevents reaction solution that passes through the reaction structure and the light guide from interacting with the device circuitry.

[Figure 3]