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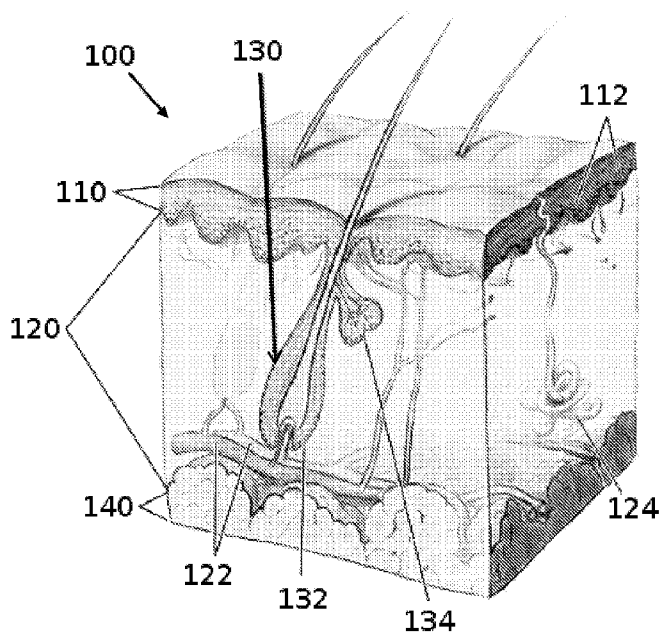


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(54) Title: IMAGE BASED BILIRUBIN DETERMINATION

Fig. 1



W<sup>o</sup> 2017/111606 A8

(57) Abstract: The invention relates to diagnosis in general and more specifically a system and a method for determining the presence of jaundice in newborn babies, also known as neonatal jaundice. A main objective of the present invention is to provide a simple system and method for determining the presence of jaundice. Particularly since most deaths due to jaundice occur in low-income countries, there is a large unmet need of simple, reliable and affordable technologies able to identify at-risk newborn. The objective is accomplished through receiving a depiction of skin from an RGB sensor, and then using either an optical diffusion model of the skin or Monte Carlo simulations to calculate the bilirubin concentration. A meta model of the optical diffusion model or Monte Carlo simulations can also be used. Colour calibration is also performed by e.g. thin-plate spline interpolation.

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