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- (71) **Applicant:** VELA OPERATIONS PTE.LTD. [SG/SG];
#02-04/05/06 The Kendall, 50 Science Park Road, Singapore Science Park II, Singapore 117406 (SG).
- (72) **Inventor:** WELEBOB, Louis; c/o Vela Operations PTE.LTD., #02-04/05/06 The Kendall, 50 Science Park Road, Singapore Science Park II, Singapore 117406 (SG).
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(54) **Title:** SYSTEM FOR PCR SAMPLE PREPARATION AND FOR PCR SET-UP

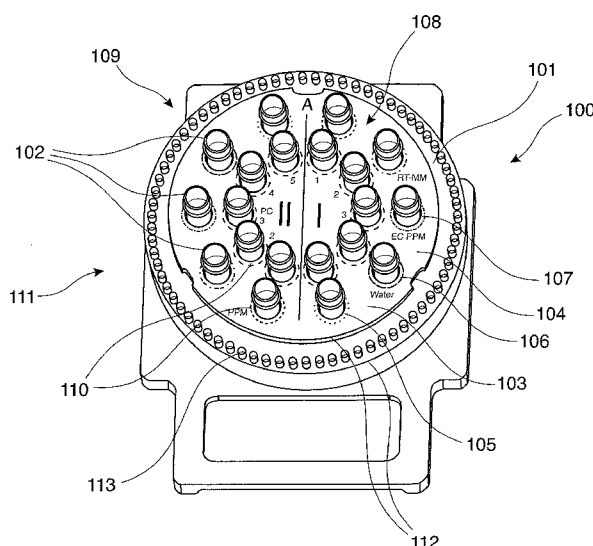


Fig. 1

(57) **Abstract:** The present invention relates to a device and method for PCR sample preparation and PCR set-up. Fully automated PCR sample preparation and PCR set-up is facilitated. A combination of a loading device with a plurality of different tube holding devices which are attached to the loading device, allows for fast exchange of assay specific reagents into and from the loading device. Color codes may proof the correctness of the performed assay, which color codes are provided on the presented tube holding device. Covering unused sample tube positions of the loading device avoids incorrect sample tube introduction. The tube holding device enables for simultaneous placement and removal of all necessary sample tubes to or from the loading device. A cover is presented to simultaneously cover the loading device and the tube holding device. Further, autoclavability is achieved by the cover. The cover may prevent from cross carry over during PCR sample preparation. In addition, interfacing data between the PCR sample preparation and PCR set-up device one the one hand and the thermocycler on the other hand is also presented by the present invention. In a further aspect of the present invention a system with an assay specific tube holding device and a pipetting program performing or causing the pipetting along said pipetting paths as described herein in several embodiments is presented. The pipetting paths described herein may be carried out by the

system 1900 which comprises the device for PCR sample preparation and PCR set-up. A corresponding computer program element is presented.