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(71) Applicant: **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way, #20-10 Connexis, Singapore 138632 (SG).

(72) Inventors: **YING, Jackie Y.**; c/o Institute of Bioengineering and Nanotechnology, 31 Biopolis Way, #04-01 Nanos, Singapore 138669 (SG). **KUMARASAMY, Saravana Kumar**; c/o Institute of Bioengineering and Nanotechnology, 31 Biopolis Way, #04-01 Nanos, Singapore 138669 (SG).

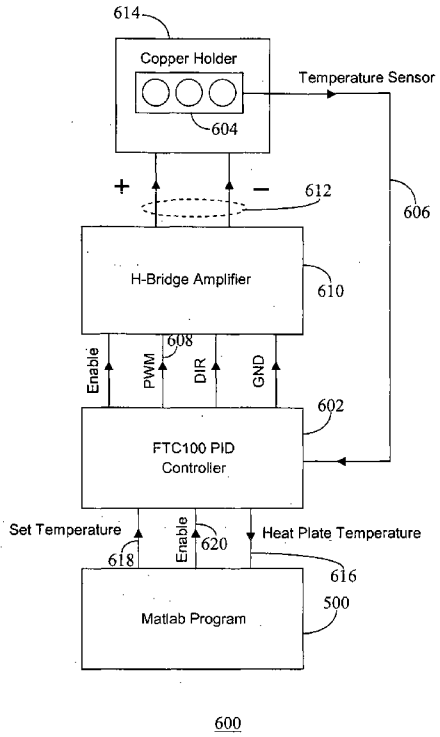
(74) Agent: **SPRUSON & FERGUSON (ASIA) PTE LTD**; P.O. Box 1531, Robinson Road Post Office, Singapore 903031 (SG).

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(54) Title: QUANTITATIVE REAL-TIME AND END-POINT COLORIMETRIC PCR DEVICE



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FIG. 6

(57) Abstract: A colorimetric-based DNA diagnostic system which includes a detector module, a processor and a memory is provided. The detector module is disposed to record an image of a DNA sample illuminated by a light source. The memory includes computer program code which along with the memory is configured, with the processor, to perform (a) sending a signal to adjust the temperature of the DNA sample to be within an approximate temperature range over which the color of the DNA sample changes, (b) sending a signal to the detector module to capture an image of the DNA sample at defined intervals within the approximate temperature range, (c) processing the captured images to extract color information, and (d) processing the extracted color information to objectively determine a melting temperature within the approximate temperature range at which the color of the DNA sample changes.

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