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(54) Title: A METHOD, A SYSTEM, AN ARTICLE, A KIT AND USE THEREOF FOR BIOMOLECULE, BIOORGANELLE, BIOPARTICLE, CELL AND MICROORGANISM DETECTION

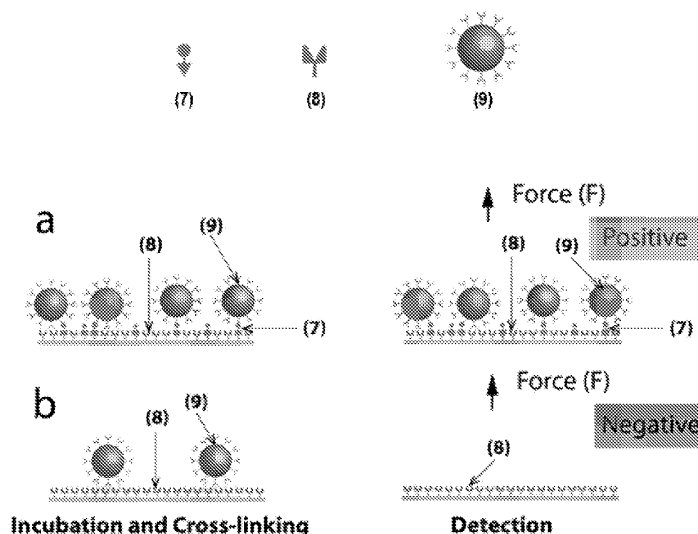


Fig. 1B

(57) Abstract: Disclosed herein is a method of detecting the presence of a target analyte in a sample, as well as a system, an article and a kit thereof, wherein the target analyte comprising biomolecule, bioorganelle, bioparticle, cell and microorganism. In certain embodiment, the method of detecting a target analyte comprising the steps of (i) providing a plurality of probe particles having sensing elements capable of specific interaction with a target analyte bound to a surface coated with another sensing element, (ii) applying mechanical force such as magnetic force to remove non-specifically bound probe particles, and (iii) measuring the amount of specifically bound probe particles or non-specifically bound probe particles through particle density, aggregate size or colour density. In one embodiment, the target analyte is SARS- CoV-2.

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