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(54) Title: A SYSTEM AND METHODS FOR THE IN VITRO DETECTION OF PARTICLES AND SOLUBLE CHEMICAL ENTITIES IN BODY FLUIDS

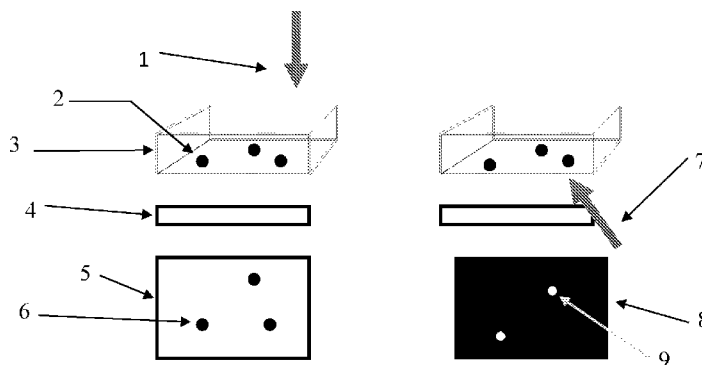


Figure 1

(57) Abstract: A system and methods for detecting particles and soluble chemical entities in body fluids consists of a system consisting of a microscopic apparatus, a sample chamber and reagents and methods used to detect, classify and enumerate particles and chemical entities in body fluids. Body fluids containing particles combined with reagents sediment to the bottom of a viewing chamber bringing them into the focal place of a digital microscopic detector. Particles identified as areas within a captured digital image that absorb or emit electromagnetic radiation can be further classified based on additional absorbed or emitted electromagnetic radiation within the predefined areas of the first digital image. Soluble chemical entities in body fluids are detected and concentrations determined using transmitted or emitted electromagnetic radiation using known chemical or antibody reactions, making the microscopic device a general purpose detector for in vitro determinations using body fluids. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher or reader to quickly ascertain the subject matter of the technical disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope of the meaning of the claims.

