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Schaff et al.

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(54) **DEVICES, SYSTEMS, AND METHODS FOR CONDUCTING SANDWICH ASSAYS USING SEDIMENTATION**

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(58) **Field of Classification Search**
USPC 435/288.7, 286.5, 287.1, 288.6; 427/2.11, 2.3
See application file for complete search history.

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(57) **ABSTRACT**

Embodiments of the present invention are directed toward devices, systems, and method for conducting sandwich assays using sedimentation. In one example, a method includes generating complexes on a plurality of beads in a fluid sample, individual ones of the complexes comprising a capture agent, a target analyte, and a labeling agent. The plurality of beads including the complexes may be transported through a density media, wherein the density media has a density lower than a density of the beads and higher than a density of the fluid sample, and wherein the transporting occurs, at least in part, by sedimentation. Signal may be detected from the labeling agents of the complexes.

22 Claims, 8 Drawing Sheets

