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(54) Title: USE OF MAGNETIC NANOPARTICLES FOR THE DETECTION AND QUANTITATION OF ANALYTE(S)

(57) Abstract: Described is a method and device for detecting an analyte in a sample, comprising bringing a sample comprising a target analyte into contact with magnetisable particles, the particles being coated with binding molecules complementary to the target analyte, resulting in bound and unbound binder complexes, positioning the magnetisable particles, comprising both bound and unbound binder complexes, in proximity to a magnetic field sensor, changing the magnetic field sufficient to release at least a portion of the magnetisable particles, comprising both bound and unbound binder complexes, from their proximity to the magnetic field sensor, and measuring changes in a magnetic signal detected from the net movement, being either translational or rotational movement, of the magnetisable particles relative to the magnetic sensor.



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