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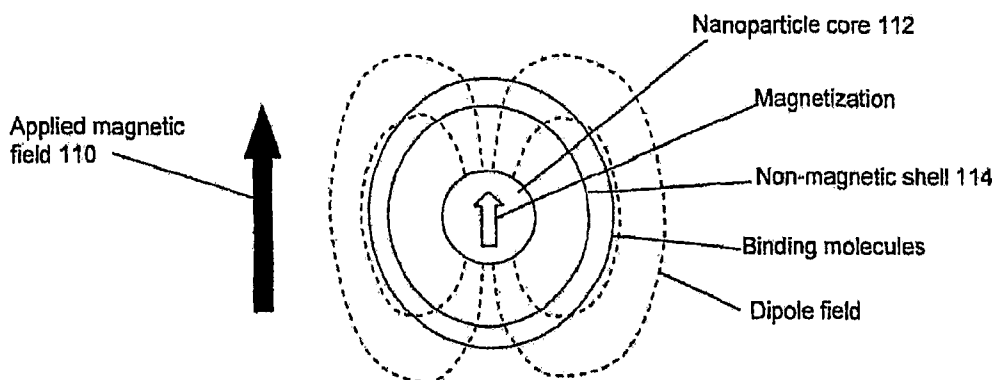
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(57) Abstract: A system and method are provided to detect target analytes based on magnetic resonance measurements. Magnetic structures produce distinct magnetic field regions having a size comparable to the analyte. When the analyte is bound in those regions, magnetic resonance signals from the sample are changed, leading to detection of the analyte.

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