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(54) Title: METHODS FOR SEPARATION AND/OR PURIFICATION OF NUCLEIC ACIDS

(57) Abstract: The disclosure relates to methods for nucleic acid purification, comprising (a) combining a sample comprising at least one nucleic acid with a binding buffer comprising at least one silica-based magnetic particle and having a pH ranging from 5 to about 10 to form a solution; (b) incubating the sample with the binding buffer for a time period sufficient to reversibly bind the at least one nucleic acid to the magnetic particle(s) to form at least one modified magnetic particle, (c) separating the at least one modified magnetic particle from the solution, (d) washing the at least one modified magnetic particle with at least one wash buffer; and (e) combining the at least one modified magnetic particle with a low conductivity elution buffer to elute the purified nucleic acid from the magnetic particle. Kits comprising these buffers and magnetic particles are also disclosed herein.



WO 2023/198909 A1