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(54) **ISOLATION OF NUCLEIC ACIDS**

(56) **References Cited**

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(58) **Field of Classification Search**

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(57) **ABSTRACT**

Provided herein is technology relating to isolating nucleic acids. In particular, the technology relates to methods and kits for extracting nucleic acids from problematic samples such as stool.

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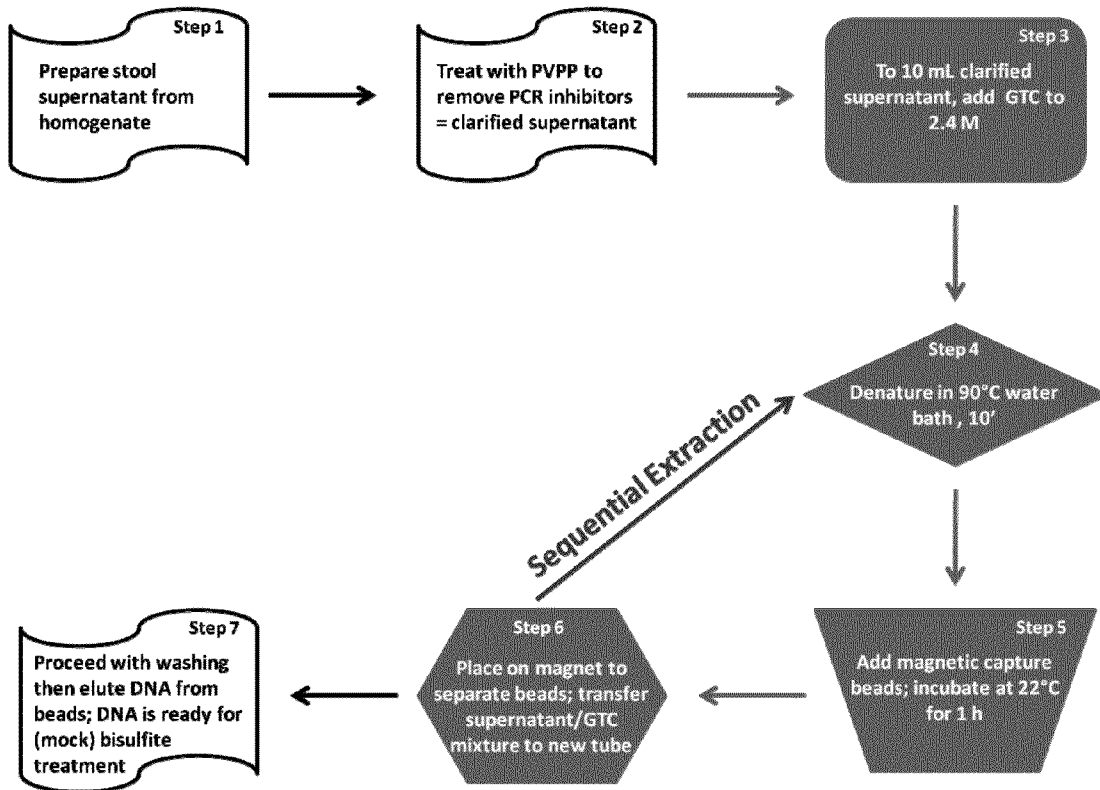
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**FIG. 1A**

<b>1. Prepare clarified supernatant</b>
Mix 8g stool with buffer
Centrifuge
Collect supernatant
Treat with inhibitor removal resin
Spin filter
Recover clarified supernatant
<b>2. Sequential Capture of DNAs of Interest</b>
Add Guanidine Isothiocyanate, heat
Add oligonucleotide-conjugated paramagnetic beads
(Alternatively, add the conjugated beads to the Guanidine Isothiocyanate solution, then heat)
Hybridize
<b>3. Isolate Captured DNA</b>
Pull beads from solution with magnet
Remove supernatant (re-use supernatant for capture of next target, Fig. 1B)
Wash Beads 3X
Elute DNA

FIG. 1B



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