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(54) Title: A NOVEL AFFINITY MATRIX AND DEVICES FOR ISOLATION AND PURIFICATION OF RNA AND DNA FOR POINT OF CARE MOLECULAR DEVICES

(57) Abstract: The present disclosure relates to nucleic acid extraction and purification methods and devices to accomplish the same. The present disclosure proposes a novel approach to this problem wherein cell isolation and nucleic acid purification can be integrated in a single "step," by using the same solid phase for both cell adsorption and nucleic acid purification. This is achieved by binding the cells to a solid support as a first step. The same solid support is then used under conditions that lyse the bound cells, and then subsequently enable the nucleic acid to bind to the support. Methods of the present disclosure relate to the isolation of nucleic acid, and especially to a method for isolating DNA from cells, biological or environmental samples using antibiotics, which bind nucleic acids.

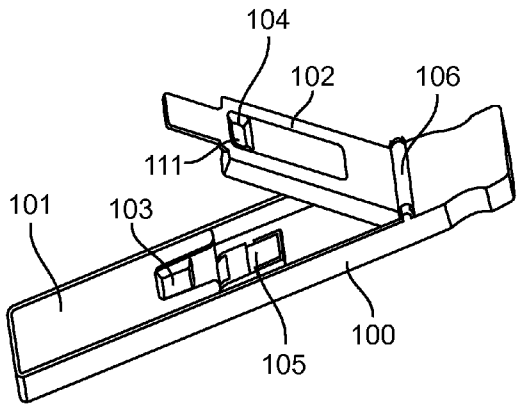


FIG. 1

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