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New design of centrifuge rotor with automatic draining system

Centrifuge rotor with auto-draining wash steps reduces contamination, prep time, and boosts throughput.

Purdue researchers have developed a novel centrifuge rotor that can automatically dispose liquid waste following wash steps. This motor is a critical improvement upon traditional methods due to the reduction in sample contamination, the reduction of sample prep time, and the increase in throughput for sample testing. This rotor reduces the possibility of cross-contamination per sample as well as sample mix-up leading to the reduction in overall sample contamination. Furthermore, the most time-consuming step of sample prep that requires the removal of used columns and tubes followed by their reassembly is nearly eliminated as the researcher now only adds the wash buffer to each column. The rotor can also be used for regular centrifuge applications that do not require liquid draining as well.

Technology Validation:

-A working prototype has been developed.

-Samples were prepared and centrifuged used the rotor, demonstrating the capability of the automatic liquid removal

Advantages:

-Decrease sample contamination

-Decreased sample preparation time

-Increase in sample testing

Applications:

-Liquid and solid separation

-Many laboratory applications involving the use of a scientific benchtop centrifuge.

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Category
Biotechnology & Life Sciences/Analytical & Diagnostic Instrumentation

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