

Standard operating procedure of Rotary evaporator

1. Objective: This instruction describes the use, maintenance and calibration of the Rotary Evaporator located in the Comprehensive Research Laboratory.
2. Performance range: This device is used for evaporation and solvent extraction of samples and should not be used for unrelated cases.
3. Responsibility: The laboratory expert is responsible for the correct operation of the device and in case of any problem; it should be reported to him.
4. Materials and equipment: The device needs to be connected to a vacuum pump and a tap. Two balloons are required to operate the device.
5. Working method:
 1. Remove the boiler of the device and fill it up to about two thirds with distilled water.
 2. Connect the vacuum pump hose to the valve-like tongue located at the top of the refrigerant.
 3. Connect the faucet hose that is connected to the refrigerant to the faucet (This hose is located at the bottom of the refrigerant and is attached to its inner helical rings).
 4. Put the third hose head in the sink.
 5. Push the handle of the device, which is located in front of the boiler, down and move it to the right until a suitable height is obtained for installing the balloon containing the sample.
 6. Attach the sample balloon to the refrigerant mouth on the top of the boiler using the device clamp.
 7. Push the handle down and move it to the left until about half of the balloon is in the water.
 8. Make sure that the solvent collection balloon is connected.
 9. Press the green buttons of the device and adjust the temperature and speed by turning the corresponding screw.
 10. Close the refrigerant valve (Set to vertical).
 11. Turn on the vacuum pump.
 12. Open the faucet until the water flows into the refrigerant spiral rings.
6. Safety and recommendation: In case of boiling of the sample, immediately turn the refrigerant valve to the horizontal position to open it and return it to the vertical position after removing the boiling state. Avoid leaving volatile and toxic materials with the lid open again.

7. Maintenance and care: After finishing the work, turn off the device and the vacuum pump and close the faucet.
Used balloons should be washed.

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