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(57) Abstract :
A water purifier system (100) is disclosed, that includes a pump (102) that extracts water from ground, a water purifier chamber (104) with a storage chamber (106) for storing and collecting water from the pump, detecting module (108) fluidically coupled to the storage chamber (106) to detect arsenic and fluorine contaminations in the water, and nanofiltration chambers (110) connected to the detecting module (108) for purifying the contaminated water. The system utilizes a decentralized database (120) connected through a blockchain network (118), and an artificial intelligence (AI) module that records contamination information on the blockchain network, extracts values from data, and compares them to a dataset. If values exceed a pre-defined range, a control valve is activated, allowing water to pass through the nanofiltration chambers (110) for purification and discharge through an outlet (122). Conversely, if values fall below the range, the stored water is discharged directly through the outlet (122).

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