

(54) Title of the invention : AN ECO-SUSTAINABLE SMART WATER BOTTLE

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(57) Abstract :  
 The present invention provides an eco-sustainable smart water bottle (1) presents a holistic solution that prioritizes sustainability, user health, and convenience. The construction encompasses a robust housing (2) for fluid storage, complemented by a set of real-time sensors capable of continuously measuring critical parameters such as fluid temperature, quality, consumption rate, and environmental conditions. Further enhancing its eco-conscious nature, the bottle features a renewable energy module (4) that harnesses energy from natural resources. Inside the housing (2), a biodegradable filtration unit (5) efficiently filters the stored fluid, while an integrated purification unit (6) ensures the highest level of fluid safety. The user experience is elevated through a mobile interface unit (7), allowing for seamless monitoring of parameters, energy usage, filtration progress, and fluid purification, with the added benefit of alerting users in case of any abnormal status, thereby promoting sustainability, health, and user engagement.

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