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(57) Abstract :

The present invention relates to a bee venom collection device and method designed for safe, efficient, and high-quality venom extraction. The device comprises a collection unit with electrodes or probes that stimulate bees to release venom, which is collected in a dedicated storage container with an integrated micro-filter for purification. The invention includes optional automation features such as real-time environmental monitoring sensors, bee escape mechanisms, and calming devices to optimize venom yield while minimizing stress on bees. Post-collection processing involves centrifugation or freeze-drying for preservation, ensuring pharmaceutical-grade venom for medical and research applications. Safety measures, including protective clothing and sterilization units, enhance usability. The invention supports sustainable beekeeping practices, promoting bee conservation and facilitating scientific research in apitherapy and pharmacology.

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