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(57) Abstract :

The present invention relates to an all-in-one dissolution and disintegration instrument featuring a movable and replaceable shaft that allows the attachment of interchangeable components, including a basket, paddle, and basket rack assembly. This instrument enables both dissolution and disintegration processes to be performed alternatively or simultaneously at either end of the shaft, thereby improving testing efficiency. Additionally, the instrument incorporates a Wi-Fi module, allowing remote control via a mobile device within a range of 30-100 meters. A built-in pH meter provides real-time monitoring of the dissolution and disintegration processes. This novel design eliminates the need for separate instruments, reduces testing time, enhances precision, and provides flexibility, making it a cost-effective solution for pharmaceutical laboratories. The instrument is fully automated, easy to use, and capable of being integrated into existing pharmaceutical testing protocols for regulatory compliance . Accompanied Drawings [Fig. 1-3]

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