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(57) Abstract :

The present invention discloses a portable molecular structure visualizer comprising a hardware unit (10), AR-enabled software (12), a smartphone dock (14), and a control interface (16). The system provides real-time 3D visualization of molecular geometries, reactions, and electron interactions using augmented reality. Equipped with a processor (18) and battery pack (20), the device operates offline and supports molecular builder, dynamic reaction simulation, and interactive quizzes. The invention enhances chemistry education by offering an immersive, cost-effective, and portable solution for visualizing complex molecular structures and reaction mechanisms.

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