

NEWSLETTER
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China has amassed 5 million invention patents, emphasizing quality over quantity

China has surpassed 5 million valid invention patents, with PCT (Patent Cooperation Treaty) filings leading globally for six years, the IP regulator said. By June 2025, high-value patents reached 15.3 per 10,000 people, beating national targets. Patent industrialization rose to 53.3% in 2024, reflecting a shift from quantity to quality and supporting innovation-driven growth for the next planning period. **(Xinhua)**

Robots horn their skills in Shanghai

The Global Developer Pioneers Summit 2025 and the International Embodied Intelligence Competition opened in Shanghai on Dec 13, showcasing full-scenario applications of embodied intelligence. Covering industrial production, social services, home assistance, emergency rescue, medical care and performance, the event features six thematic tracks and 19 sub-events highlighting robots' integration into daily life. **(China Daily)**

China's CH-7 high-altitude, high-speed drone makes maiden flight

China's CH-7 high-altitude, high-speed drone has successfully completed its maiden flight in Northwest China, entering the flight-testing phase. Featuring a tailless flying-wing design, long endurance and strong stealth, the drone can carry multiple mission payloads for surveillance, reconnaissance and data support in complex combat environments, its developer said. **(People's Daily)**

Chinese scientists achieve breakthrough in seawater hydrogen and magnesium co-production

Chinese researchers have developed a technology to directly electrolyze natural seawater, producing hydrogen while extracting magnesium. Led by Hainan University, the team created a novel anti-fouling electrode that enables stable operation for over 5,000 hours. Producing one kilogram of hydrogen can yield about 15 kilograms of magnesium hydroxide, sharply reducing hydrogen costs and supporting low-cost green hydrogen production. **(Xinhua)**

Chinese researchers achieve precise broadband control of nanoscale light fields

A Chinese-led research team has proposed a "phonon engineering" strategy to realize ultrabroadband, near-diffraction-free directional propagation of polaritons. Published in Nature Nanotechnology on Dec 15, the study harnesses anisotropic phonon vibrations to actively control polariton bandwidth, phase and direction, opening new pathways for compact, high-performance photonic circuits. **(Science and Technology Daily)**