

Wave Energy. Waves are created by the interaction of winds with the sea surface, and possess both kinetic energy (in the forward movement of water) and potential energy (due to the amount of water displaced from the mean sea level). The highest concentration of wave energy occurs between 40 degrees and 60 degrees latitudes, in each hemisphere.

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The average tidal energy resource potential for Hong Kong is only 13.7 kJ/m²/day or 1.39 kWh/m²/yr, which is very small when compared to other Renewable Energy (RE) resources. Wave energy. Using the wave data collected by the Hong Kong Observatory at Waglan Island in the year 1999, it was estimated (in the RE study of EMSD) that a 10 kW ...

A research team from the Faculty of Engineering of The Chinese University of Hong Kong (CUHK) has recently developed a water-tube-based triboelectric nanogenerator that can efficiently convert various irregular and low-frequency mechanical energies, including ocean wave energy, into electricity, providing a new avenue for the development of ...

Abstract: Wave energy harnessing becomes a hot issue in exploiting renewable resources. In order to convert wave energy into mechanical energy and further using generators to produce electricity, various wave energy converters have been proposed.

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Kinetic energy produced by the movement of ocean waves can be harnessed by wave energy converter equipment such as wave turbines to power onshore electricity generators, creating a valuable source of renewable energy.

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A top research team from the Department of Electronic Engineering at City University of Hong Kong (CityU) has been awarded a grant of \$119,000 by the Hongkong Electric Clean Energy Fund to support the development of the Wave Energy Collector.

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