Yangtze river cloud and energy storage cloud

However, the research on the sub-cloud secondary evaporation effect in the Yangtze River Basin is relatively poor. Meng et al. used the original isotope data of 443 GNIP precipitation samples in the Yangtze River Basin to calculate the corresponding atmospheric precipitation lines for rainfall and snowfall in the basin. The correlation between ...

TAIPEI -- Yangtze Memory Technologies, China"s top memory chipmaker, will roll out its first-ever storage products lineup in the second half of the year, the company said Saturday, adding that the ...

Based on the TBB (temperature of black body) data from the GOES-9(2003) and FY 2C(2007), the station observed data and the NCEP reanalysis data with the resolution of 1°×1° (four times a day), the impacts of the eastward propagation of convective cloud systems over the Tibetan Plateau on the rainfall of downstream areas during the Meiyu periods of 2003 and 2007 are ...

As a typical climate that occurs in the Yangtze-Huaihe River basin of China with a size of 500,000 km2, plum rain can reduce the photovoltaic (PV) potential by lowering the surface irradiance (SI ...

Decarbonization of electrical power generation is an essential necessity in the reduction of carbon emissions, mitigating climate change and attaining sustainable development. Solar energy as a substitution for fossil fuel-based energy sources has the potential to aid in realizing this sustainable future. This research performs a geographic information systems ...

The water level in the Yangtze River has significantly changed due to the effects of varied precipitation and dam operations, which have exerted significant effects on irrigation, navigation, and ecosystems. Based on the measured data and the proposed calculation method, we analyzed the adjustment mechanisms of the seasonal water level in the whole Yangtze ...

Chinese planes are firing rods into the sky to bring more rainfall to its crucial Yangtze River, which has dried up in parts, as swaths of the nation fall into drought and ...

2.1 Study area. The YRB (24°30?N-35°45?N, 90°33?E-122°25?E) (Fig. 1) is the vast area through which the mainstream and tributaries of the Yangtze River flow, with a total length of 6,300 km and a total area of 1800,000 km 2, making it the third largest basin in the world.Originating in the Tanggula Mountains on the Tibetan Plateau, the YRB extends across ...

The results indicated that the MIWDR is suitable for the long-term and large-scale Landsat water bodies mapping, especially in the urban regions, and was associated with the climate changes and intense human

activities in the YRB. The spatiotemporal changes of open-surface water bodies in the Yangtze River Basin (YRB) have profound influences on ...

Cloud energy storage (CES) in the power systems is a novel idea for the consumers to get rid of the expensive distributed energy storages (DESs) and to move to using a cloud service centre as a virtual capacity. Although the different characteristics and applications of the energy storages are reviewed in some papers, there is no review study ...

In 2022, a severe drought and heatwave occurred in the middle and lower reaches of the Yangtze River Basin. Previous studies have highlighted the severity of this event, yet the relevance of soil moisture (SM), as well as vapor pressure deficit (VPD) and vegetation damage, remained unclear. Here, we utilized solar-induced chlorophyll fluorescence (SIF) and ...

The cold spots (P < 0.001) were mainly located in the Tibetan Plateau, the Chengdu-Chongqing City Group, the Yangtze River Middle Reaches Megalopolis, and the Yangtze River Delta Urban Agglomerations, and the hot spots (P < 0.001) were scatteredly distributed in the upper reaches while concentrated in the middle and lower reaches. The "high ...

The main purpose of this study is to provide a comparative overview of the regional siting potential of various low-carbon power plants in the Yangtze River Delta of China.

The forest biomass carbon storage in the Yangtze River Economic Belt will increase by 3.67 Pg C from 2015 to 2060. The proportion of forest C sinks on the regional scale to C emissions on the national scale will increase from 2.9% in 2021-2030 to 4.3% in 2041-2050.

Among other large energy storage projects is the Laurel Mountain energy storage facility in Randolph and Barbour Counties near Elkins, W.Va., which comprises 98 MW of wind generation and 32 MW of ...

The Yangtze River Valley (YRV) experienced an unprecedented heatwave in midsummer of 2022. Still, the detailed physi-cal processes involved in the inuence of abnormal large-scale ...

The Yangtze River Delta (YRD) region is located in relatively wealthy eastern coastal regions in China; and this supra-region encompasses Shanghai, Jiangsu province, Zhejiang province, and Anhui province (Wu, W. et al., 2021).With only 21% of China"s total area, the YRD region has 0.23 billion of the total population and has contributed about 1/4 of China"s ...

Water-energy-food (WEF) risks and security are widely concerned, but there are few quantitative studies on WEF security assessment, especially lacking of researches at the urban scale.

The Yangtze River Economic Belt (YREB) is the core region for the security of mineral resources in China

and is a strategic water source containing rich water resources.

Here, we conducted a simulation study grounded by recent empirical evidence and advances in modeling techniques to project the spatiotemporal dynamics of carbon storage of the Yangtze River Basin ...

The 2022 megadrought in the Yangtze River Basin has imposed serious impacts on the economy and livelihood, covering farmland irrigation, urban and rural water supply, power generation, and navigation. First of all, the drought has significantly affected food security. The Yangtze River Basin is the main grain-producing area in China.

Based on the NOAA"s Advanced Very High Resolution Radiometer (AVHRR) Pathfinder Atmospheres Extended (PATMOS-x) monthly mean cloud amount data, variations of annual and seasonal mean cloud amount over the Yangtze River Delta (YRD), China were examined for the period 1982-2006 by using a linear regression analysis. Both total and high-level cloud ...

atmosphere Article Sub-Cloud Secondary Evaporation in Precipitation Stable Isotopes Based on the Stewart Model in Yangtze River Basin Hanyu Xiao 1,2, Mingjun Zhang 1,2,*, Yu Zhang 1,2, Zhihua ...

By combining satellite observations, soundings, and reanalysis data, we have investigated the meteorological triggers and cloud microphysics of a heavy rainfall event over ...

Concept of digital twin construction scheme for flood storage space in mid-lower Yangtze River. August 2022 ... cloud computing and c loud storage, ... requirements for the development of energy ...

Changes in monthly surface area, water level, and storage of 194 lakes and reservoirs in the Yangtze River Basin during 1990-2021 using multisource remote sensing data Author links open overlay panel Zheng Liu a 1, Nengfang Chao a 1, Gang Chen a, Guoqing Zhang b, Zhengtao Wang c, Fupeng Li a d, Guichong Ouyang a

The results indicate that the economy in the Yangtze River Delta is spreading outward from the core areas, with the average population-nightlight inconsistency index decreasing from 1.57 to 1.33. ... Combining annual data entails deriving the weighted mean from the 12 monthly datasets, factoring in the quantity of cloud-free coverages for ...