

How to develop a technological innovation network of China's PV industry?

Specifically, we use Excel to process the patent technology codes of PV industry, get the co-occurrence frequency of any two technology codes under a certain year, and assign side weights according to it, so as to construct the technological innovation network of China's PV industry.

Is China's PV industry independent innovation capability improved?

From the perspective of total amount of technology patents registered in the PV industry, after nearly 40 years of development, China's PV industry independent innovation capability has been greatly improved.

How has China's PV power technology changed over time?

Zhao et al. showed that China's PV power technology has improved dramatically, with technological advances in the efficiency, reliability, and reduced pollution of PV cells and PV power generation systems, leading to a rapid increase in both PV production capacity and the value of exports.

How does China's Photovoltaic Industry Innovation Network evolve?

Innovation ability and organizational proximity play key roles in the evolution of China's photovoltaic industry innovation network. The innovation network is the frontier of economic geography, although the drivers and the underlying mechanism of the evolution of this innovation network are not clear.

Why is China focusing more on solar photovoltaic (PV)?

The solar photovoltaic (PV) power is abundant, clean, and convenient and also has been considered as one of the most promising renewable energies [5,6]. Due to the ever-increasing energy and environmental pressures, China is switching to focus more on fostering the PV industry.

Why does China have a lack of PV technology patents?

China has the largest total number of PV technology patents in the world, but the lack of core technologies has restricted the further innovative development of China's PV industry. Therefore, it is necessary to clarify China's current PV technology accumulation to better catch up with key technology areas.

Innovating with the Science and Technology Innovation Board China has made attempts to address some of the issues mentioned above by setting up bourses that mainly serve high-growth enterprises. There was ...

Downloadable (with restrictions)! China's success as a rapid innovation follower in the infant Photovoltaic (PV) industry surprised many observers. This paper explores how China inserted ...

With respect to technology, Fang & Li believe that PV technology in China made PV applications grow rapidly in the past 10 years, and the PV enterprises should improve ...

Innovation and international collaboration are crucial in addressing global challenges but uneven levels of innovation across regions can hinder global development and economic growth. China has emerged as a ...

Moreover, the study has shown that city-level demand-, supply-, and environment-side policies play an important role in the technology innovation of urban solar photovoltaic industry (Che et ...

The global demand for photovoltaics (PVs), or solar cells, increased by 53 percent per annum during 2000 to 2010. Japanese PV manufacturers, which had been the leading force of the ...

1 ??&#0183; Learning from the experience of previous reforms, on November 5, 2018, China revealed plans to establish the Science and Technology Innovation Board (STAR market) on the ...

This study selects China's prefecture-level cities as a sample to analyze the effect of policies on PV technology innovation. China's solar PV occupies a dominant position in the ...

The registration statement, the inquiry letter, and the reply letter are the main application materials for companies wanting to list on the Science and Technology Innovation ...

Additionally, new energy companies such as BYD, GCL ET, and Goldwind are promoting innovation in blade battery technology (lithium battery), photovoltaic panels and wind turbines, enhancing the ...

In order to implement the requirements in the Implementation Opinions on Establishing Science and Technology Innovation Board and Piloting Registration-based IPO System on Shanghai ...

To clearly describe the structural characteristics of China's PV technology innovation network, this study uses China's patent PV technology data over the past 20 years from the Incopat global ...

For example, the PV manufacturing industry specification conditions stipulate that the annual R& D expenditure ratio of the photovoltaic industry should remain above 3% 5 ...

