



APPLICATION TO GRANT TRENDS

IN THE US,
EUROPE, JAPAN
AND CHINA

SEPTEMBER 2022

INTRODUCTION

The purpose of patent application is to obtain patent granted so as to protect the intellectual property rights of enterprises and seek more benefits. As the world's major economies, the grant of patents in the United States, Europe, Japan and China clearly deserves our attention. In this report, the application (invention patents) to grant trends in the past 20 years in the above four regions is analyzed.

GENERAL INFORMATION

The application to grant trends in the United States, Europe, Japan and China in recent 20 years is summarized in **Figure 1-4**.

It can be seen that the number of patent applications, granted and granted rates in the United States and Europe have remained relatively stable, and the annual patent granted rates of the two countries are between 50-60% (the decline in recent years is because some patents have not been examined).

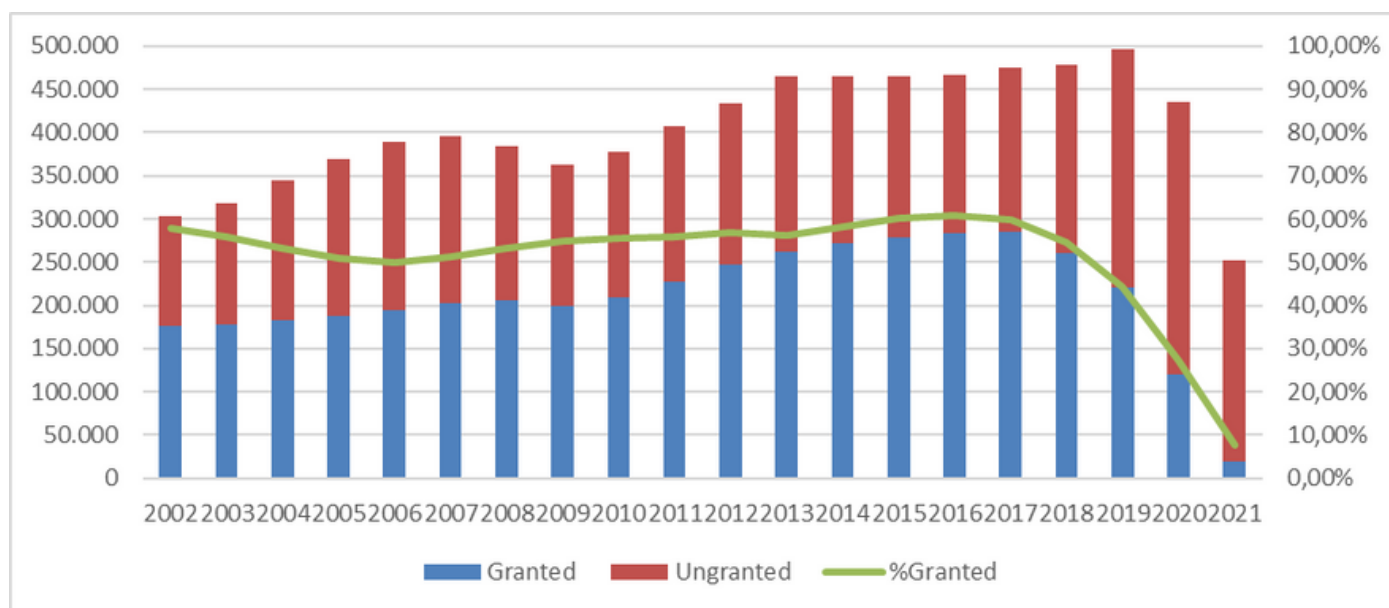


Figure 1 The application to grant trends in the United States

GENERAL INFORMATION

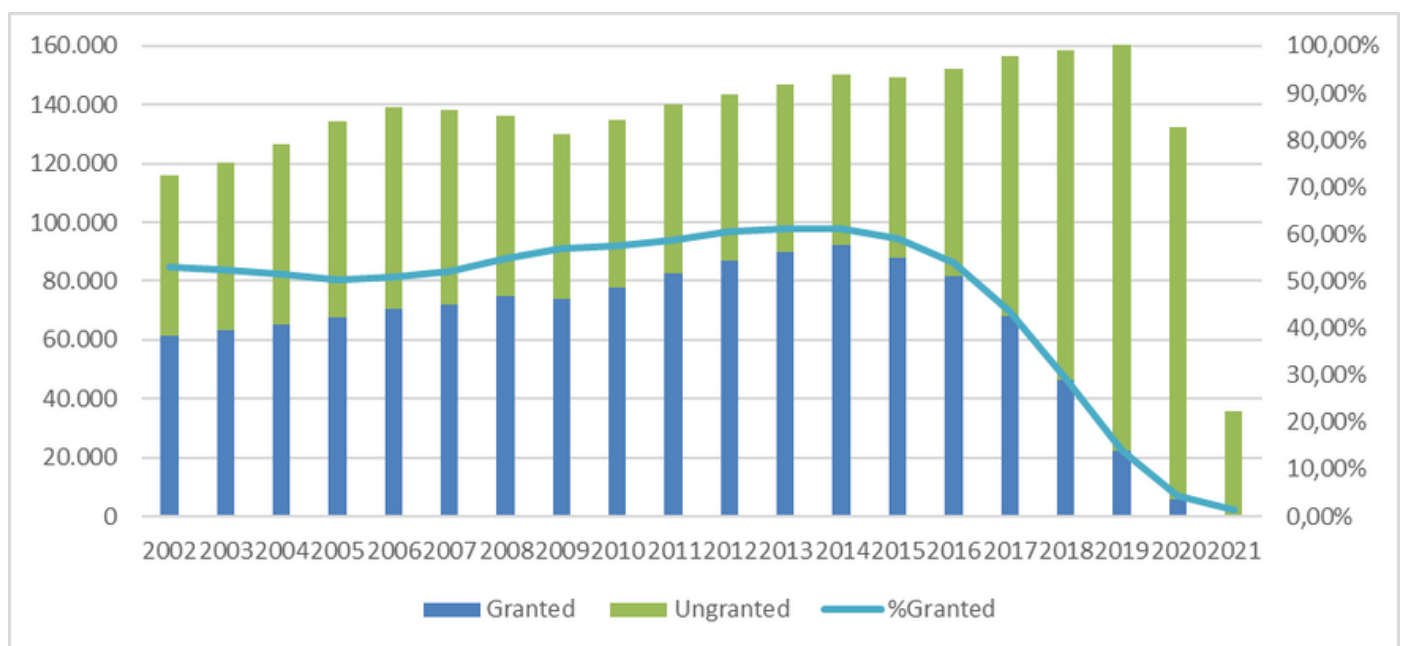


Figure 2 The application to grant trends in European

The volume of patent applications in Japan has declined slightly in the past 20 years, but the volume of granted patents has increased, leading to an upward trend in the country's granted rate, from the initial 40% to more than 60%.

GENERAL INFORMATION

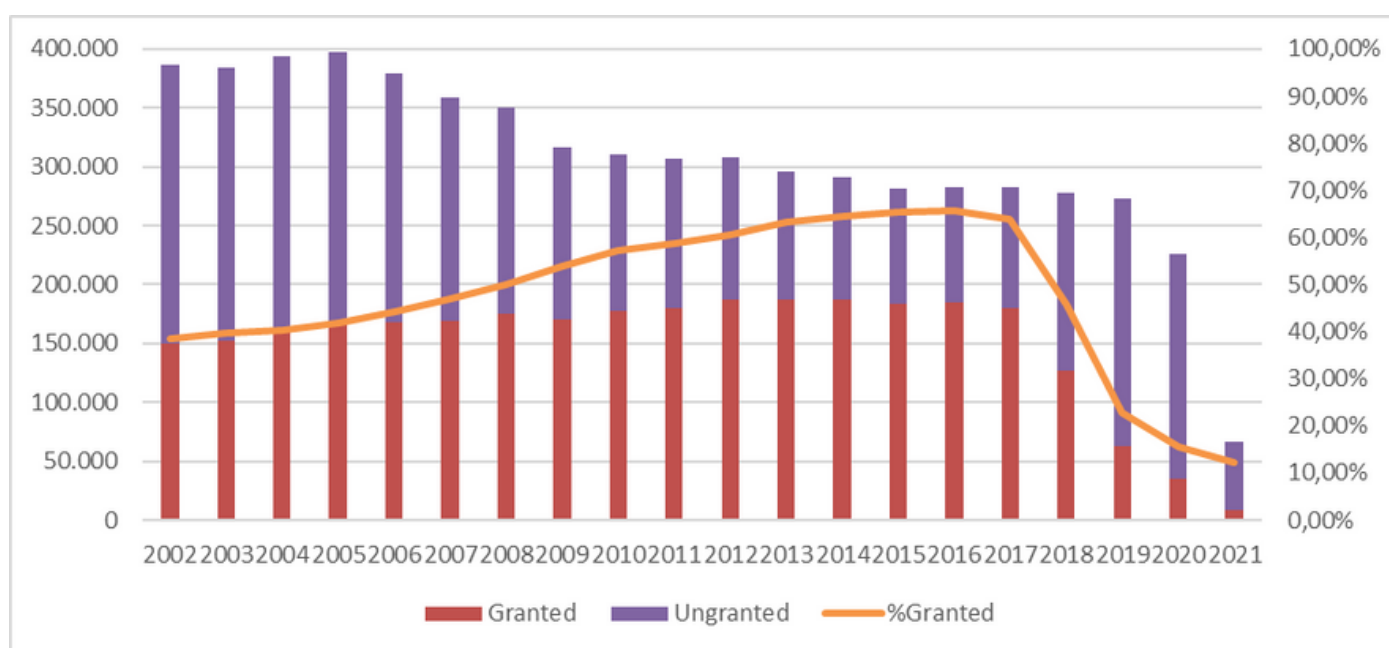


Figure 3 The application to grant trends in Japan

China is the only country among the four patent offices that the volume of patents has increased significantly, but the proportion of patents granted in this country has declined from about 60% at the beginning to less than 40%. This reflects that the overall quality of Chinese patents needs to be improved.

GENERAL INFORMATION



Figure 4 The application to grant trends in China

The statistics of the total volume of patent granted and granted rate in the four regions in recent 20 years are shown in **Figure 5**. It can be seen that the patent granted rates in the United States, Europe and Japan are similar. China's patent granted rate is obviously low, but because its patent applications far exceed those of other countries, China's patent granted volume is still the largest. (Due to the fact that some patents have not been examined, the granted rate obtained is relatively lower than the true level).

GENERAL INFORMATION

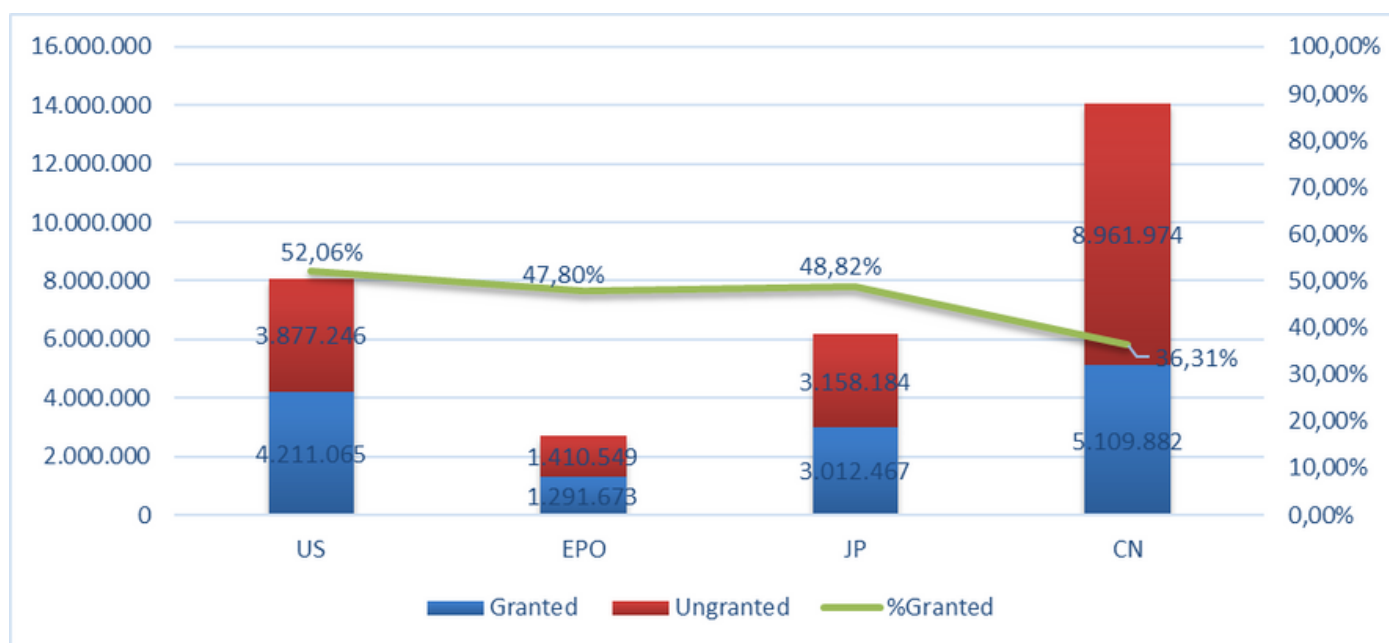


Figure 5 Patent application and granted in the United States, Europe, Japan and China in recent 20 years

GRANTED IN DIFFERENT COUNTRIES OF ORIGIN

Will patents from home or abroad have an impact on the grant of patents? This report makes statistics on the grant of patents in the United States, Europe, Japan and China in recent 20 years according to the classification of patent origin from domestic or foreign. The results are shown in **Figure 6**.

It can be seen that in the United States, the volume of patents from home and abroad is basically the same, but the granted rate of domestic patents is higher than that of foreign patents. The volume of domestic patents in Europe is less than that in foreign countries, and the granted rate of domestic and foreign patents is basically similar. The granted rate of domestic and foreign patents in Japan is similar, but most of the patents come from their own countries. Chinese patents mainly come from domestic, but the granted rate of local patents is significantly lower than that of foreign patents.

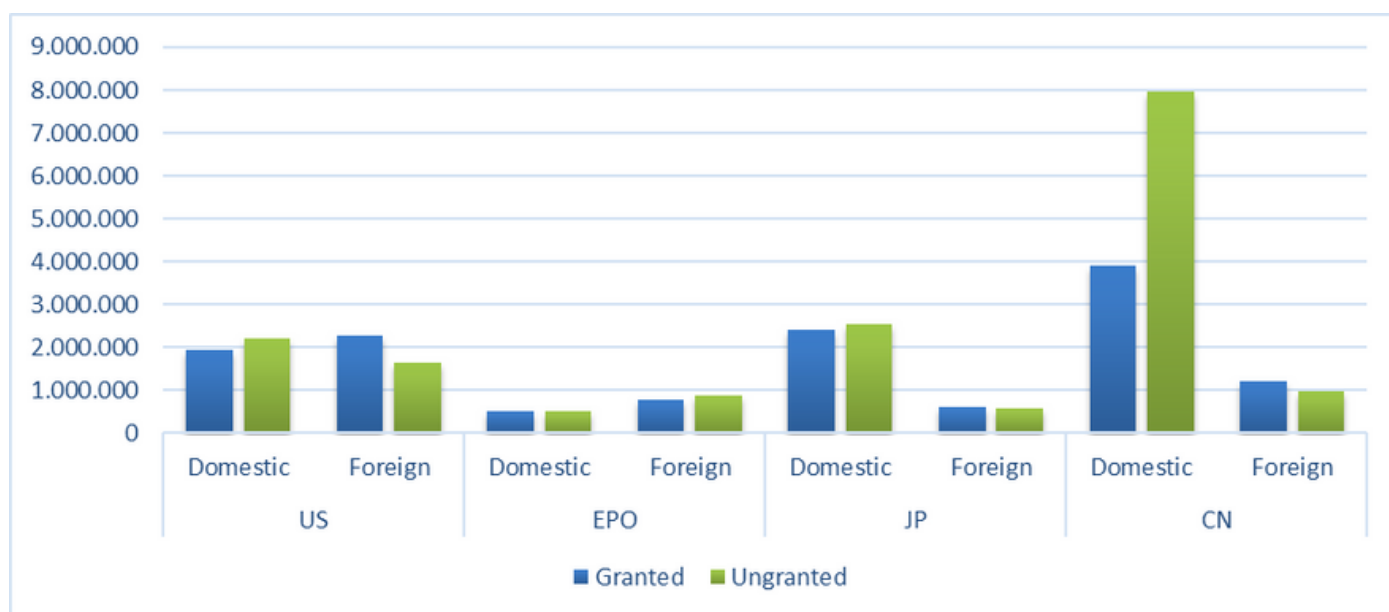


Figure 6 Granted in different countries of origin

KEY TECHNOLOGIES OF GRANTED

Figure 7-10 shows the statistics of the main technical fields of patents granted by the United States, Europe, Japan and China.

Through comparison, it can be clearly found that although there are large differences in the volume of patents granted in the four regions, the main technical fields of patents granted are very similar. For example, the technical fields with IPC numbers G06F and H01L have more granted patents in the four regions. It can be seen that information technology and semiconductor are the hot spots of current technology development, and the volume and quality of their patents developed well.

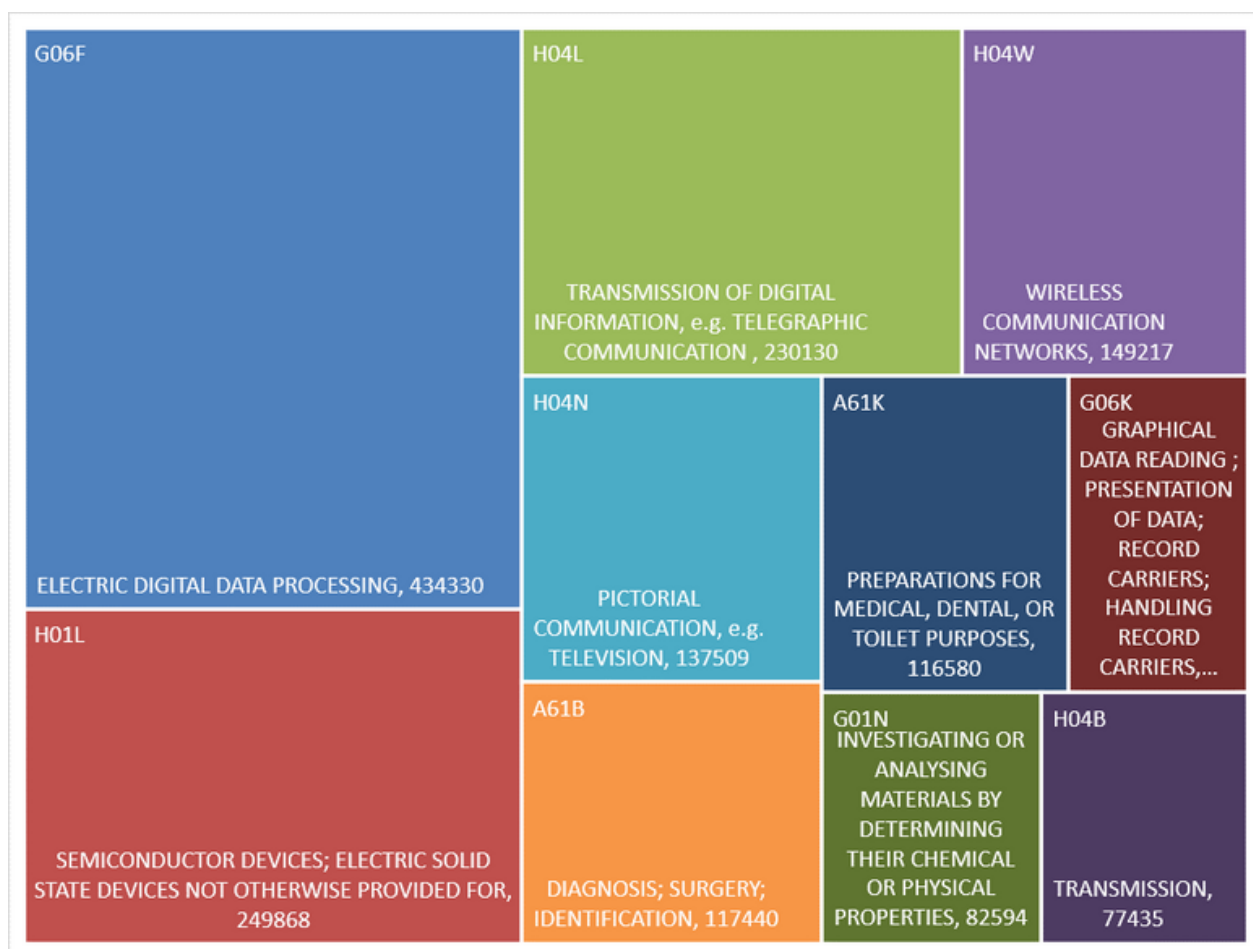


Figure 7 The top 10 IPC classification numbers of the US granted patents

KEY TECHNOLOGIES OF GRANTED

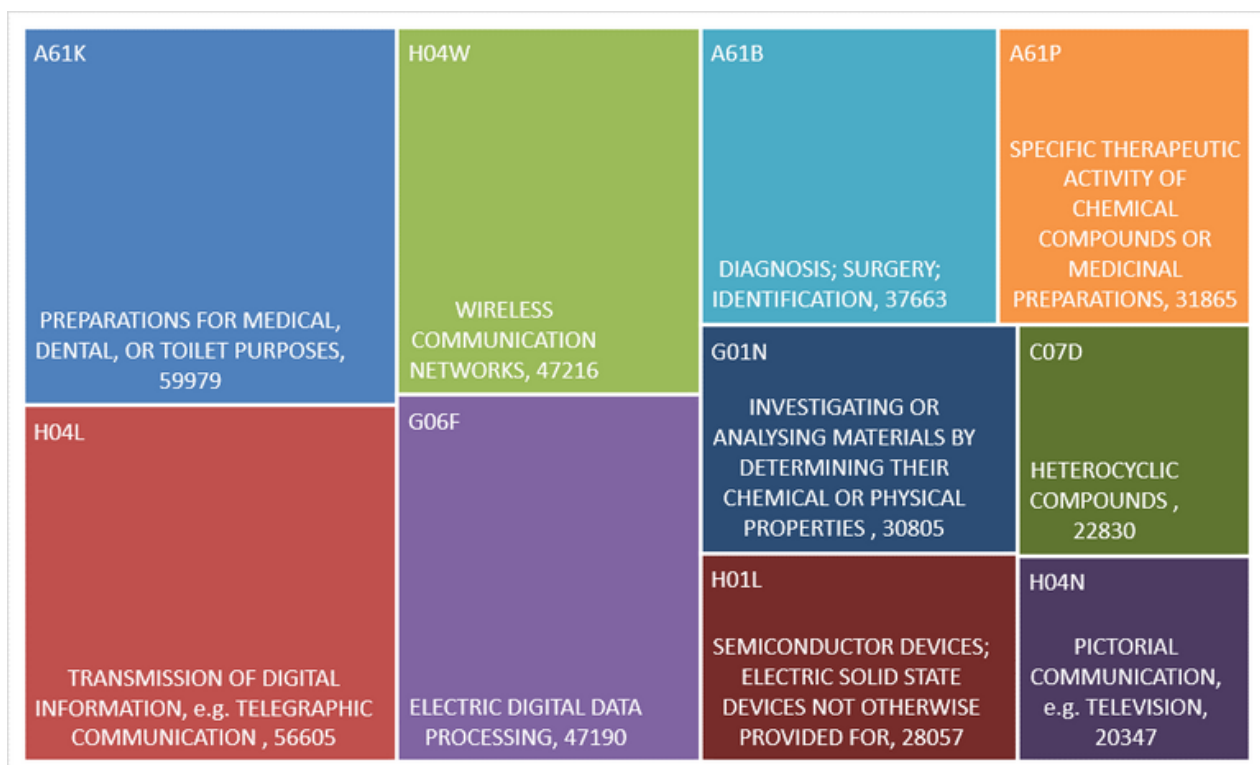


Figure 8 The top 10 IPC classification numbers of European granted patents

KEY TECHNOLOGIES OF GRANTED

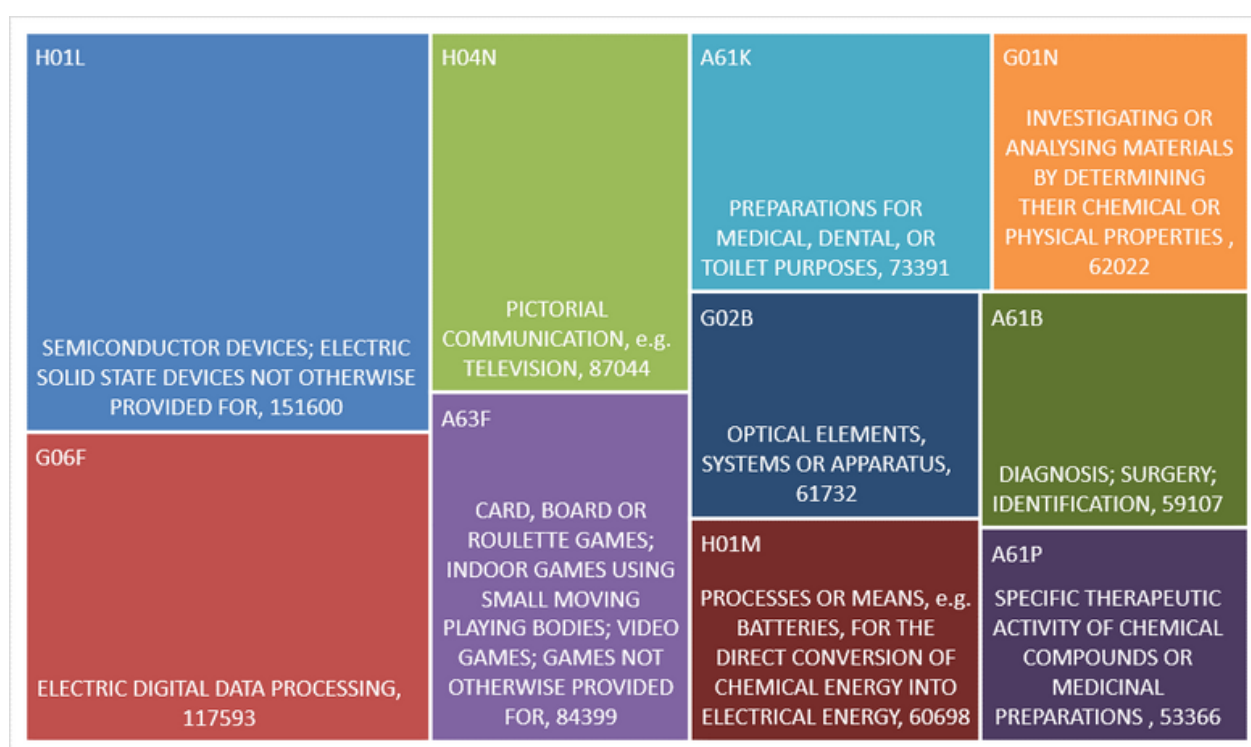


Figure 9 The top 10 IPC classification numbers of Japanese granted patents

KEY TECHNOLOGIES OF GRANTED

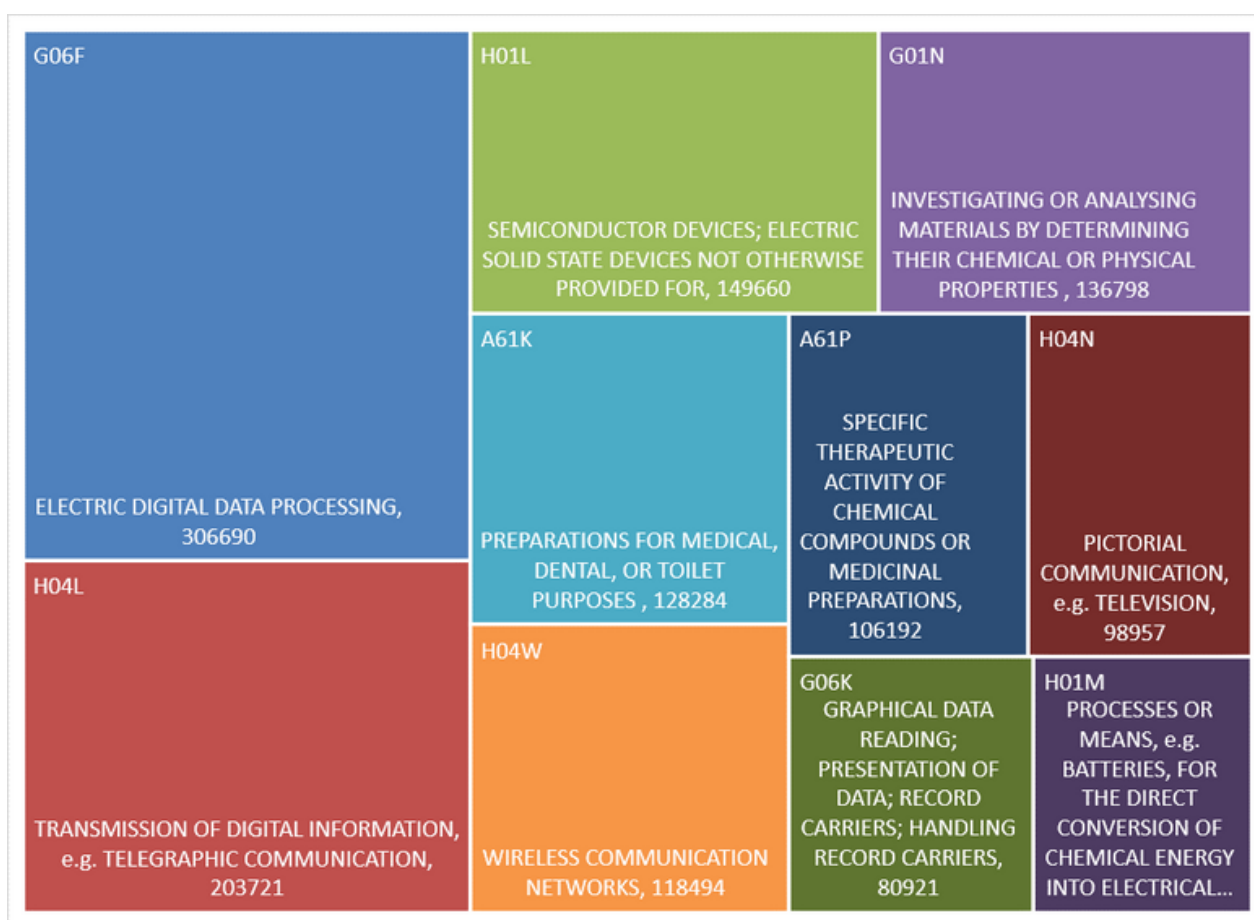


Figure 10 The top 10 IPC classification numbers of Chinese granted patents

CONCLUSION

The development of patents in the United States, Europe, Japan and China has attracted worldwide attention, and the focus is on granted patents. Through analysis, it can be found that the volume and the rate of patents granted in the above four regions are quite different, but the main technical fields of granted patents are very similar.

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