



## **Microwave sintering**

Coherent electromagnetic waves in the microwave frequency between 0.3~ 300GHz. Since the 1940s, microwave radar, communications, energy, plasma and solid state physics and other fields has been widely used. Microwave sintering materials began in the mid 1960s, Levinson [1] and Tinga [2] first proposed the microwave sintering of ceramic materials; the mid-1970s, French Badot and Berteand [3] and the United States Sutton [4], etc. It began a systematic study of microwave sintering technology. After 80 years, a variety of high-performance ceramic and metal-ceramic materials are widely used, the corresponding preparation technology has become the focus of attention. Microwave sintering its energy-saving, time-saving advantage of the unique, extensive attention the United States, Canada, Britain, Japan, Germany and other developed country governments, industry, academia, and China also in 1988 be included in the "863" plan. So far, the scope of application of microwave sintering technology, sintering process, sintering system optimization design, sintering mechanism and other aspects of the sintering process computer simulation conducted extensive studies [5-9]. This gives the further development of microwave sintering technology to lay a solid theoretical foundation, we have accumulated a wealth of experience for the promotion and application of technology.