1350～1400℃. The low temperature gas combined with the high temperature melt in the whole process. Gasification melting technology is different from traditional incinaration. This new technology can gasify a large volume of waste material, such as waste electrical equipments, computers, batteries, Se-drump of printer, ink box and so on. The energy derived from this process can be used to generate electricity and supply heat.

Comparing with traditional incineration technology, Gasification melting technology is characteristic of a lot of advantages. Firstly, the maximum volume reduction can be obtained. The flammable components of WEEE were pyrolyzed by gasification melting treatment, and the compactness of slag greatly increased. Thus, the volume reduction and weight reduction were about 70% and 85%, respectively. Secondly, the low emission of dioxin was actualized (Fink *et al*., 2000; Tange and Drohmann, 2004).

Another merit of gasification melting technology is no needed to classify the type of WEEE. This merit can not only decrease the cost of WEEE classification but also largely shorten the treatment period of WEEE. Furthermore, this process can generate heat and electricity.

The detailed process of gasification melting technology can be summarized as follow: melt, refinement and electrolysis.

5. 3. 1. Melt

The different types of WEEE were firstly uniformly mixed and then added to the furnace as raw materia. Some fuel was added at the beginning of incineration, and then the furnace temperature was maintained by the released energy of polychlorinated biphenyls. The combustion of plastic and oxidation of metal can also generate heat energy. In order to avoid higher furnace temperature, it is needed to add silicate and control the amount of plastic. The top layer and bottom layer of melt WEEE was corresponding to slag and rmetals such as copper. The remained slag can reclaim the noble metal by floatation.

5. 3. 2. Refinement

The metals from furnace were added to converter to mixed refinement. The converter refinement is a heat-released process, which can supply enough energy for operation of converter. Different type of metal can be refined in this peocess. The industrial waste gas derived from converter was disposed to get metal dust, which could be recoverd.

5. 3. 3. Electrolysis

The metal (such as Copper) obtained in converter can be purified by electrolysis. The high purity copper was obtained in the cathode, while the notable metal and impurity were obtained in anode.

5. 4. Chemical recycling technology

Economy and Andreopoulos（Economy and Andreopoulos, 1996） developed a method to directly recycle and reuse thermosetting resins as a crosslinkable copolyester. Dang *et al*. (Dang *et al*., 2002) found that amine cured epoxy resins were not resistant to acid solutions and completely decomposed in high concentration acids at high temperatures. However, the recycled resins showed higher mechanical strength than virgin resin. They used a similar process to recycle glass fiber reinforced epoxy resins (GFRP) (2005). Chen *et al*.(2002) created reworkable thermosets with cleavable linkages and studied their chemical and thermo-mechanical breakdown mechanisms. Although chemical recycling is a promising route for converting plastic wastes to their original constitutes, much more research and development on chemical recycling is needed to reduce the high cost and improve the quality.

6. Conclusion

The current situation of WEEE recovery at home and broad, especially for current Chinese WEEE recovery has been reviewed in this paper. The current tenchnology of WEEE recovery can be summarized in three categories as follow:

• High temperature treatment technology, including incineration, cracking, direct melting and so on;

• Chemical treatment technology, including pickling and corrosion;

• Mechanical and physical treatment technology, including crushing and separating.

Mechanical/physical recycling process can be summarized in the follow steps:

Screening, shape separation, magnetic separation, electric conductivity-based separation and density-based separation. Among them, electric conductivity-based