As the microanode in IME process waste cast iron chips from machining processes were used. These processes require the use of chemicals such as oils and emulsion. To decrease the surface of the iron and to remove the oxide layer iron chips were soaked in 0.1N HCl for 10 min and washed in 0.1N NaOH. After that treatment iron filings were washed with distilled water 10 times and left at room temperature for drying. Finally, the proper fraction was separated on the sieves.

As the cathode material in IME process GAC was used. In the production/activation process of that GAC it gains an alkaline character (pH 8 - 8.5). To remove these alkalic properties and obtain GAC with a pH close to neutral, GAC was soaked in sulfuric acid 10% H_2SO_4 for 24 hours. After that the carbon was rinsed with distilled water to remove residual acid and left at room temperature for drying.