of the applied direct-current voltage. In this manner, it is consequently possible to determine a polarization current to control voltage characteristic/curve resp. a polarization conductance value to control voltage characteristic/curve. In DE102004002763, the operating point is established where the polarization current, as a function of the direct-current voltage, takes on a maximum value, i.e. the polarization conductance value takes on the value zero. Unfortunately, this approach is only productive for electrically conducting coating materials. If the outer layer of the coating is an electrically non-conducting layer that is not merely a passivated one resulting from ambient oxidation but a deliberately applied one, this method will also result in the unacceptable holes described above.

In DE19840471 and also in WO9954528, electrolytic processes for removing coatings are also described that however also only relate to workpieces coated with an electrically conducting coat.

There is therefore a need for a coating removing process for coatings with surfaces that are not electrically conducting, which yields a less damaged surface within a shorter coating removal time.

It is the aim of the present ~~invention~~disclosure to propose a process on the basis of an electrochemical process for removing a coating that leads to short process durations, yet with which damage to the surface of the workpiece to be stripped is prevented.

In one aspect, there is provided a process for removing a coating from workpieces having an electrically non-conducting surface, wherein the process is carried out by means of an electrolyte and includes the following steps:

- preparing a tank, wherein inside the tank an electrode that can be connected to one pole of a power supply device is provided
- filling an electrolyte into the tank, so that the electrode comes into contact with the electrolyte
- immersing one or several workpieces into the electrolyte

- applying a voltage between the workpiece and the electrode for an at least partial removal of the workpiece's coating

characterized in that the voltage during the at least partial coating removal is adjusted in such a way that at a first point in time a first voltage is applied and at a later point in time a voltage is applied that is higher than the first voltage and which does not result in the formation of holes, wherein the application of the higher second voltage at the first point in time would have resulted in the formation of holes.

According to the ~~invention~~disclosure, this aim is achieved in that the voltage applied to the workpiece is increased in the course of the coating removal process. According to the ~~invention~~disclosure, both an incremental as well as a continual increase can be chosen during the process of removing a coating. The voltage progression chosen according to the ~~invention~~disclosure is not necessarily monotonous. It is however important that at the beginning of the coating removal process, there is a phase with comparatively low voltage, which is then increased during the course of the coat stripping at least on average. With such a voltage progression, it has surprisingly been shown that the surface damage turns out to be considerably less than with a process that achieves comparable coating removal times at a constant voltage.