CLAIMS

1. An electrode assembly system for treatment of internal organ oedema by electro-osmosis and/or electrophoresis by delivering an electric field, the system comprising

a first electrode,

a second electrode, and

a control unit,

wherein the first electrode and second electrode are electrically connected to the control unit,

characterized in that

the control unit is adapted to charge the first electrode negatively and the second electrode positively, and the control unit is adapted to directly control a strength of an electric field induced by the first electrode and the second electrode to a preset value for generating a treatment-specific electric flux.

2. The electrode assembly system according to claim 1, wherein the control unit is adapted to switch the polarity of the charged first and second electrodes.

3. The electrode assembly system according to claim 1 or claim 2, wherein the first electrode is a patch electrode and the second electrode is a patch electrode to be positioned opposite one the other of the internal organ so that the electric field generated by the negatively and positively charged first and second electrodes is spanned through the internal organ.

4. The electrode assembly system according to claim 1 or 2, wherein the first electrode is a coil electrode, and the second electrode is a patch electrode, wherein the first electrode is to be positioned inside a liquid vessel of the internal organ and the second electrode is to be positioned outside of the internal organ so that the electric field generated by the negatively and positively charged first and second electrodes is spanned through the internal organ oedema part.

5. The electrode assembly system according to claim 1 or 2, wherein the first electrode is a coil electrode and the second electrode is a coil electrode, wherein the first electrode is to be positioned inside a liquid vessel of the internal organ and the second electrode is to be positioned inside a liquid vessel of the internal organ so that the electric field generated by the negatively and positively charged first and second electrodes is spanned through the internal organ oedema part.

6. The electrode assembly system according to any one of claims 1 to 5, wherein the control unit is adapted to control the charge of the negatively and positively charged first and second electrodes to control the strength of the electric field at the place of the internal organ oedema.

7. The electrode assembly system according to any one of claims 1 to 6, wherein

the control unit is configured to allow the preset value of the strength of the electric field to be set and/or entered into the control unit by a user, the control unit is configured to automatically control the strength of the electric field to the preset value for the strength of the electric field, and/or

the control unit is configured to cause and maintain the strength of the electric field at the preset value for the strength of the electric field independently of external influences.

8. The electrode assembly system according to any one of claims 1 to 7, wherein the first electrode and the second electrode have each an electrically isolating sheath, preferably wherein the electrically isolating sheath comprises a material taken from the group encompassing silicone, thermoplast, PEEK, PHA and PHB.

9. The electrode assembly system according to any one of claims 1 to 8, wherein the electrodes are positioned extracorporally, preferably wherein the electrodes are positioned in physical contact with the external skin surface, more preferably wherein the electrodes can be attached or adhered to the skin surface.