Claims

1. An electrode for an apparatus,

wherein the electrode is comprised of a plurality of segments arranged together in sequence to form a rectangular shape,

wherein the segments are arranged next to each other in a first direction,

wherein adjacent segments are separated from each other along respective segment edges by a gap or by electrically insulating material,

wherein the segment edges extend at least partly in a second direction from a common value of a co-ordinate in the second direction to an edge of at least an electrically conducting part of the electrode surface, the second direction being transverse to the first direction and corresponding to a direction of movement for a workpiece, and

wherein the segment edges between at least one pair of adjacent segments extend along respective paths of which an angle to the electrode surface edge decreases from the common value of the co-ordinate to the electrode surface edge, and

wherein a width of the segments, corresponding to a distance between the edges of a segment at the common value of the co-ordinate, increases from segment to segment, so that the segments become progressively wider with distance in the first direction from an electrode edge, or wherein this condition holds true within each half of the electrode, seen in the first direction.

2. The electrode according to claim 1,

wherein, at least within each half of the electrode seen in the first direction, the paths extend in a same one of opposite senses in the first direction from the common value of the co-ordinate to the electrode surface edge, so that the paths are all inclined in the same direction, at least within each half of the electrode seen in the first direction.

3. The electrode according to claim 1 or 2,

wherein the paths from the common value of the co-ordinate to the electrode surface edge are curves.

4. The electrode according to any one of the preceding claims,

wherein at least the electrically conducting part of the electrode surface comprises two halves, seen in the second direction,

wherein respective sections of the segment edges in one half are a mirror image of respective sections of the segment edges in the other half with respect to a line of symmetry located at the common value of the co-ordinate.

5. The electrode according to any one of the preceding claims,

wherein a point at the electrode surface edge on a path of a first of the segment edges of each segment is at the same co-ordinate value or offset in the first direction from a point at the common value of the co-ordinate on the path of the other of the segment edges of that segment.

6. The electrode according to any one of the preceding claims,

wherein an angle to the electrode surface edge of the paths of a pair of segment edges between a pair of adjacent segments at the surface edge increases from pair to pair with distance in the first direction from an electrode edge, or

wherein this condition holds true within each half of the electrode, seen in the first direction.

7. An assembly for forming a cell of an electrolytic processing apparatus,

wherein the assembly comprises at least one electrode according to any one of the preceding claims.

8. The assembly according to claim 7, further comprising at least one shielding device, extending in the first and second directions in front of the electrode surface of one of the at least one electrodes.

9. The assembly according to claim 8,

wherein the shielding device comprises a plate, provided with a multitude of through-going channels pervious to liquid and distributed in the first and second directions.

10. An electrolytic processing apparatus comprising at least one processing cell, the processing cell comprising at least one assembly according to any one of claims 7-9.

11. A method comprising at least a computer-implemented step of designing an electrode according to any one of claims 1-6,

wherein the design step includes determining the shapes of the paths.

12. The method according to claim 11,

wherein determining the shapes of the paths includes determining respective coefficients of a second-degree polynomial, of the co-ordinate in the first direction, the polynomial representing a co-ordinate in the second direction, and

wherein, seen in plan view onto the electrode surface, each path from the common value of the co-ordinate in the second direction corresponds to the polynomial with a respective set of coefficients, optionally with a superimposed deviation.

13. The method according to claim 12,

wherein the coefficients are obtained by calculating a voltage drop-off function, being a function of the co-ordinate in the first direction and representing a voltage change in the first direction along the surface of the workpiece.

14. A computer program comprising instructions which, when the program is executed by a computer, cause the computer to carry out the design step of a method according to any one of claims 11-13.