What is the DSE® electrode for functional water?

In 2000, electrolytic functional water, such as strongly acidic electrolyzed water and slightly acidic electrolyzed water were approved as a food additive in Japan, and examples of its degreasing action using electrolyzed alkaline water, and its efficacy in symptomatic improvements have been reported. Since JIS established standards for water electrolytic water generator for home use in 2005, electrolytic water has been gaining more and more attention. The applications of this simple and safe functional water are extensive, and this technology is now being recognized around the world as a new Japanese development.

When using city water as the raw material, a reverse current operation is performed in order to control the separation of the hardness components. Therefore, durability is required for this operating mode, for both the anode and the cathode. Electrodes which are coated with platinum or oxidized iridium by thermal decomposition on a titanium substrate offer excellent stability and hypochlorous acid current efficiency, and can be used as the anode and cathode electrodes for electrolytic functional water.

Characteristics of electrolytic functional water

<table>
<thead>
<tr>
<th>Area</th>
<th>Model number</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation of strongly acidic and strongly alkaline electrolyzed water Generation of sodium hypochlorite</td>
<td>JL-403</td>
<td>Hypochlorous acid can be produced efficiently from low saline concentrated water, and reverse electrolysis is also possible.</td>
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<tr>
<td>Purifier for alkali-ionized drinking water Generation of drinking hydrogen water</td>
<td>JL-510</td>
<td>This electrode can be used for reverse electrolysis and can be used as either an anode or cathode.</td>
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Applications of this electrode

Electrolytic water is generated electrolyzed at low direct voltage using city water or dilute brine. Various types of electrolytic functional water can be made, depending on the apparatus and electrolytic conditions. Attention is currently focusing on acidic electrolyzed water that can be used for cleaning and disinfection, such as strongly acidic electrolyzed water, weakly acidic electrolyzed water, and slightly acidic electrolyzed water; strongly alkaline electrolyzed water that is capable of decomposing grease and protein; electrolyzed hypochlorous acid water that is thought of as a diluted solution of sodium hypochlorite; alkali-ionized drinking water that can improve gastrointestinal symptoms; and, more recently, hydrogen water and oxygen water. We propose DSE® electrodes for functional water that satisfy your needs.

01 Purifier for alkali-ionized water
02 Apparatus for generation of strongly alkaline electrolyzed water
03 Apparatus for generation of strongly acidic electrolyzed water
04 Apparatus for generation of weakly acidic electrolyzed water
05 Apparatus for generation of slightly acidic electrolyzed water
06 Apparatus for generation of electrolyzed hypochlorous acid water
07 Apparatus for generation of hydrogen water and oxygen water

Specifications of this electrode

Electrode shape

After baking noble metal components and coating a 500 × 1200 mm large plate with the baked components, we process the plate in line with your requested specifications, and then deliver the electrode to you. We will consult with you concerning the level of adhesion of the noble metal coating according to your application and conditions, as well as the shape of the electrical supply part.