

---

**(12) PATENT APPLICATION PUBLICATION****(19) INDIA****(22) Date of filing of Application: 20/11/2003****(21) Application No. : 1066/MUMNP/2003****A****(43) Publication Date: 05/05/2006**

---

**(54) Title of the invention: METHOD FOR THE IMPROVEMENT OF CURRENT EFFICIENCY IN ELECTROLYSIS.**

---

<b>(51) International classification</b>	<b>:</b>	<b>C25C 7/06, G01R 31/02</b>
<b>(31) Priority Document No</b>	<b>:</b>	<b>20011351</b>
<b>(32) Priority Date</b>	<b>:</b>	<b>25/06/2001</b>
<b>(33) Name of priority country</b>	<b>:</b>	<b>FINLAND</b>
<b>(86) International Application No and Filing Date</b>	<b>:</b>	<b>PCT/FI02/00522 14/06/2002</b>
<b>(87) International Publication No</b>	<b>:</b>	<b>WO 03/000960</b>
<b>(61) Patent of addition to Application No Filed on</b>	<b>:</b>	<b>NIL N.A.</b>
<b>(62) Divisional to Application No Filed on</b>	<b>:</b>	<b>NIL N.A.</b>

**(71) Name of Applicant:****OUTOKUMPU OYJ****Address of the Applicant:****RIIHITONTUNTIE 7, FIN - 02200 ESPOO,  
FINLAND.****(72) Name of the Inventor:**

- 1. RANTALA ARI**
- 2. VIRTANEN HENRI**

**Filed U/S 5(2) before The Patents (Amendment)  
Act, 2005: NO**

---

**(57) Abstract:** The invention relates to a method for the improvement of current efficiency in electrolysis. According to the method, a theoretical cell voltage is first calculated, which is compared with the measured voltage. The cumulative difference between the theoretical and measured cell voltage is monitored constantly and when this difference is proportioned to the current efficiency, information on the status of the process can be obtained continually. A decrease in current efficiency is a clear indicator of short circuits between the electrodes, and by means of the method according to the invention, it is possible to concentrate the short circuit removal work onto the correct cell groups, from the point of view of the current efficiency of the electrolysis.

**Drawing: Nil****Total Pages: 07.**