Title (en)
METHOD FOR FRAGMENTING AND/OR PRE-WEAKENING MATERIAL USING HIGH-VOLTAGE DISCHARGES

Title (de)
VERFAHREN ZUR FRAGMENTIERUNG UND/ODER VORSCHWÄCHUNG VON MATERIAL MITTELS HOCHSPANNUNGSENTLADUNGEN

Title (fr)
PROCÉDÉ DESTINÉ À FRAGMENTER ET/OU À PRÉ-AFFAIBLIR UN MATÉRIAU AU MOYEN DE DÉCHARGES À HAUTE TENSION

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Abstract (en)
[origin: WO2013053066A1] The invention relates to a method for fragmenting and/or weakening material (1) using high-voltage discharges. The material (1) together with a processing liquid (5) are introduced into a processing chamber (2) in which two electrodes (3, 4) which are positioned opposite each other are at a distance from each other and are arranged in said chamber such that the region between the two electrodes (3, 4) is filled with the material (1) and the processing liquid (5). High-voltage discharges are generated between the two electrodes (3, 4) in order to fragment or weaken the material (1). According to the invention, processing liquid is discharged from the processing chamber (2) and introduced into the processing chamber (2) while the material (1) is being fragmented or weakened. The introduced processing liquid (5) has a lower electric conductivity than the discharged processing liquid (5). It has been shown that the energy efficiency and the ability to comminute hard and brittle materials can be substantially improved using said method in the electrodynamic methods known today.

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