

Title (en)

Method for cooling graphite electrodes used for metal melting and refining in an electric arc furnace and a ladle

Title (de)

Verfahren zum Kühlung von Graphitelektroden für Metallschmelz- und Raffinierungsverfahren in einem Dichtbogenofen und Pfanne

Title (fr)

Procédé de refroidissement d'une électrode en graphite pour la fusion et le raffinage de métal dans un four ou poche à arc

Publication

**EP 0827365 A2 19980304 (EN)**

Application

**EP 97101716 A 19970204**

Priority

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- JP 24926396 A 19960830

Abstract (en)

A method for cooling a vertical train of graphite electrodes (10; 36) connected to each other, by using a cooling liquid (11) sprayed onto the outer periphery surface of at least one graphite electrode (10; 36) consisting of an upper portion of said graphite electrode train, said graphite electrode train either penetrating through a cover (1) enclosing an opening of an electric arc furnace with a vessel for melting and refining a metal, such as steel or the like, and extending into said vessel, or penetrating through a cover enclosing an opening of a ladle (30) for receiving, melting and refining secondarily a metal molten and refined in a furnace, and extending into said ladle. The method is characterized by the steps of directing said cooling liquid at the upward or downward inclination ( $\theta$ ) of 0 degrees to 60 degrees with respect to the horizontal level (L-L) and spraying said cooling liquid (11) simultaneously at a flow rate ranging between 0.8 liters/minute and 40 liters/minute. <IMAGE>

IPC 1-7

**H05B 7/12**; **H05B 7/085**

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

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