

Title (en)
Heat treatment of metals.

Title (de)
Wärmebehandlung von Metallen.

Title (fr)
Traitement thermique des métaux.

Publication
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Application
EP 90306645 A 19900619

Priority
GB 8914366 A 19890622

Abstract (en)
A metal less readily oxidisable than iron is annealed in an atmosphere that is formed by separating (in for example a pressure swing adsorption apparatus 2) nitrogen from air to form a gas mixture comprising at least 95% by volume of nitrogen and a minor proportion of oxygen impurity, and then reacting the oxygen impurity with hydrogen in a catalytic reactor 4. The resulting atmosphere, which is admitted to an annealing furnace 6, comprises nitrogen, hydrogen and water vapour.

IPC 1-7
C21D 1/76; **C22F 1/02**

IPC 8 full level
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CPC (source: EP KR)
C21D 1/26 (2013.01 - KR); **C21D 1/763** (2013.01 - EP); **C22F 1/02** (2013.01 - EP)

Citation (search report)

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- [XP] FR 2639252 A1 19900525 - AIR LIQUIDE [FR]
- [XP] FR 2639250 A1 19900525 - AIR LIQUIDE [FR]
- [A] PATENT ABSTRACTS OF JAPAN, vol. 13, no. 156 (C-585)[3504], 14th April 1989; & JP-A-63 310 915 (DAIDO STEEL CO., LTD) 19-12-1988
- [A] ADVANCED MATERIALS & PROCESSES, vol. 134, no. 3, September 1988, pages 100,102,104,107, Metals Park, Ohio, US; W.C. QUANTZ: "Stealing nitrogen from the air"

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