

Title (en)

PLANT COMPLEX FOR PIG IRON PRODUCTION AND A METHOD FOR OPERATING THE PLANT COMPLEX

Title (de)

ANLAGENVERBUND ZUR ROHEISENERZEUGUNG SOWIE EIN VERFAHREN ZUM BETREIBEN DES ANLAGENVERBUNDES

Title (fr)

ENSEMBLE D'INSTALLATIONS POUR LA PRODUCTION DE FONTE BRUTE PROCÉDÉ PERMETTANT LE FONCTIONNEMENT DE L'ENSEMBLE D'INSTALLATIONS

Publication

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Application

EP 17784885 A 20170929

Priority

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Abstract (en)

[origin: WO2019037885A1] The present invention relates to a plant complex for pig iron production comprising a furnace (1) for pig iron production, a furnace-gas line system (2) for at least one stream of furnace gas that occurs during the pig iron production, wherein the stream of furnace gas has a composition which comprises at least nitrogen, carbon monoxide and carbon dioxide, a hydrogen source (3), and an H₂-gas line system (4) for at least one stream of hydrogen-containing gas emitted from the hydrogen source (3), wherein at least one mixing device (5) is provided for setting at least one mixed gas from the at least one stream of furnace gas and the at least one stream of hydrogen-containing gas emitted from the hydrogen source (3), wherein the at least one mixing device (5) is connected to the furnace-gas line system (2) and to the H₂-gas line system (4) and wherein the at least one mixed gas that is set comprises at least a stoichiometric quotient of the mixture from a dividend comprising the difference between the molar quantities of hydrogen as the minuend and carbon dioxide as the subtrahend and a divisor comprising the total amount of the molar quantities of carbon monoxide and carbon dioxide, and has a mixed-gas line system (6) for the at least one mixed gas that occurs during the setting of the at least one mixing quotient and a chemical plant (7), which is connected to the mixed-gas line system (6).

IPC 8 full level

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Citation (search report)

See references of WO 2019037885A1

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