

The invention relates to a method for preparing ammonia gas and CO<sub>2</sub> for a urea synthesis process. In the method according to the invention, a process gas (2) comprising as main components nitrogen, hydrogen and carbon dioxide is generated from smelting gas (1) containing blast furnace top gas at least as part of the component mixture or consisting of blast furnace top gas. The process gas (2) is separated into a gas stream (6) containing the CO<sub>2</sub> component and a gaseous mixture (5) consisting primarily of N<sub>2</sub> and H<sub>2</sub>. An ammonia gas (8) suitable for the urea synthesis (9) is generated from the gaseous mixture (5) by means of ammonia synthesis (7). CO<sub>2</sub> is split-off from the CO<sub>2</sub>-containing gas stream with a purity and in an amount that is suitable for the urea synthesis.