Abstract

The invention relates to the electrodialytic production of ammonia and sulfuric acid from ammonium-sulfate-rich (waste)waters. An object of said invention was to provide a process for recovering ammonia and sulfuric acid from waters containing ammonium sulfate in high concentrations. The process should be practicable on an industrial scale and have good energy efficiency. This problem is solved by a combination of electrodialysis and water electrolysis. It results in ammonium sulfate being split back into ammonia and sulfuric acid. Unlike conventional three-chamber processes, the process of the invention employs a cell having only two compartments, which can however be multiply parallelized within the stack. This type of scale-up is much more cost-effective than connecting multiple cells in parallel.

Figure 9 relating to the abstract