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(54) Title: METHOD FOR PRODUCING TETRAFLUOROSILANE

(57) **Abstract:** The invention relates to a method for producing tetrafluorosilane by decomposing hexafluorosilicic acid with sulfuric acid, which comprises: step 1 of decomposing hexafluorosilicic acid in concentrated sulfuric acid in the first reactor to give SiF₄ and HF and taking out the SiF₄; step 2 of transferring part of the concentrated sulfuric acid solution of step 1 containing HF into the second reactor to react the HF with silicon dioxide fed thereinto, thereby producing SiF₄ containing (SiF₃)₂O; and step 3 of bringing the reaction product of step 2 containing (SiF₃)₂O and SiF₄ to the first reactor to react (SiF₃)₂O contained in the reaction product with HF to convert it into SiF₄ and then taking out the SiF₄ along with SiF₄ formed in step 1. According to the invention, high-purity SiF₄ can be obtained with (SiF₃)₂O being reduced, free from HF generated as a problematic side product in conventional method.



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