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(54) **Title:** APPARATUS AND METHOD FOR THE CONDENSED PHASE PRODUCTION OF TRISILYLAMINE

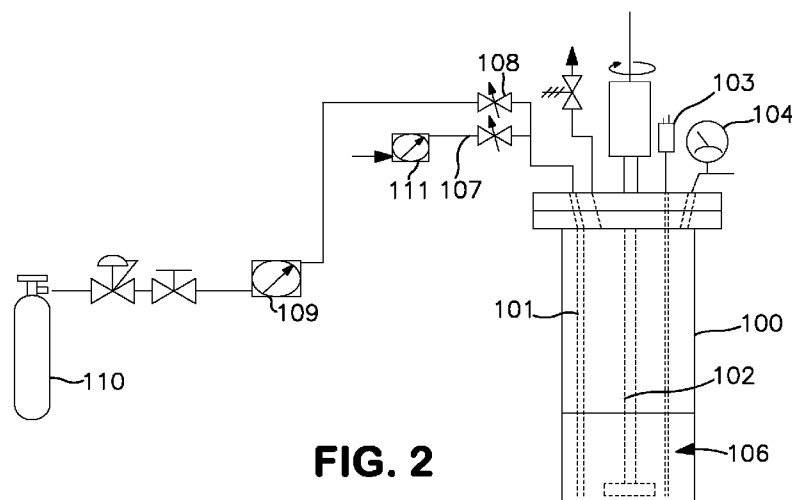


FIG. 2

(57) **Abstract:** The present invention is directed to a condensed phase batch process for synthesis of trisilylamine (TSA). An improved synthesis method that incorporates a solvent to help promote a condensed-phase reaction between ammonia gas (or liquid) and liquified monochlorosilane (MCS) in good yields is described. This method facilitates the removal of the byproduct waste with little to no reactor down time, substantial reduction of down-stream solids contamination and high-purity product from first-pass distillation.