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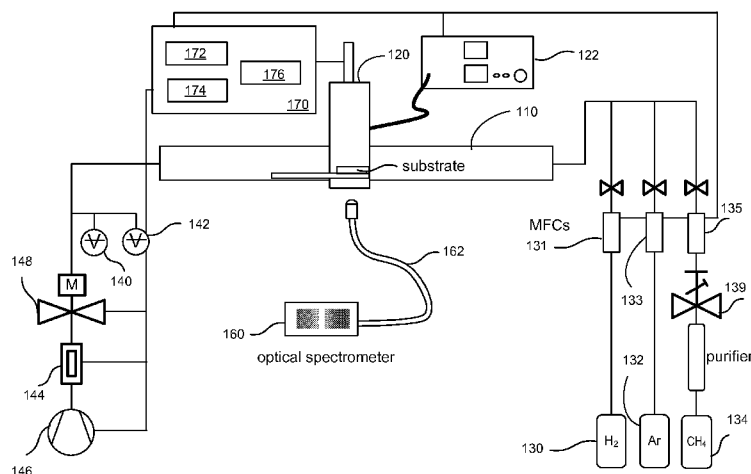


FIG. 1

(57) Abstract: A method for forming graphene includes providing a substrate and subjecting the substrate to a reduced pressure environment. The method also includes providing a carrier gas and a carbon source and exposing at least a portion of the substrate to the carrier gas and the carbon source. The method further includes performing a surface treatment process on the at least a portion of the substrate and converting a portion of the carbon source to graphene disposed on the at least a portion of the substrate.