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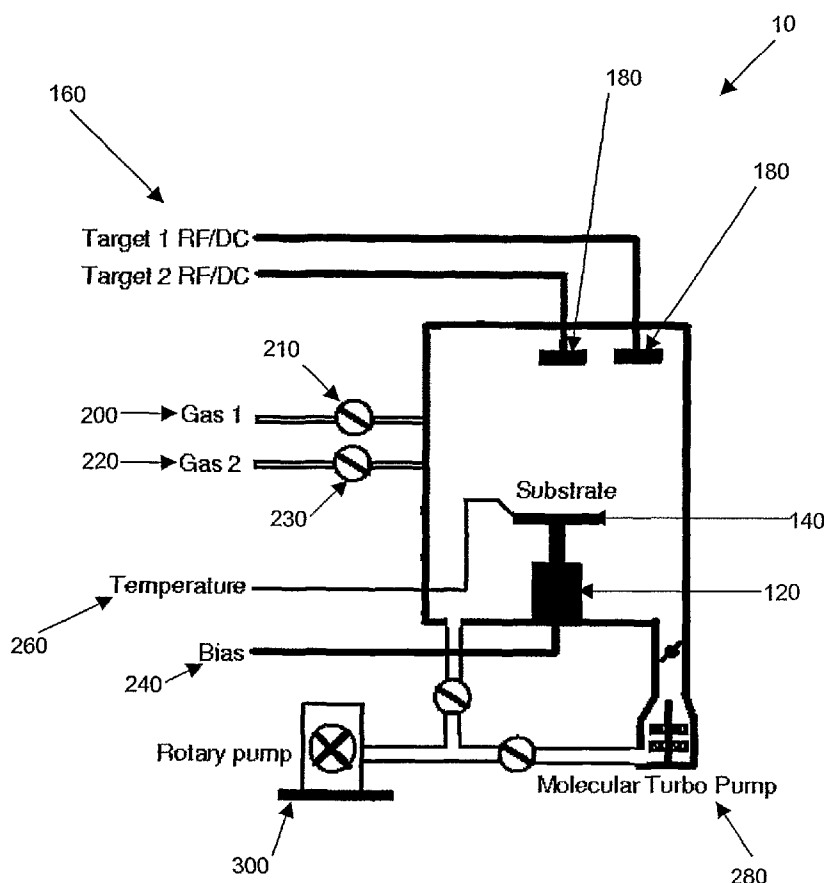
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(54) Title: DOPED METAL OXIDE FILMS AND SYSTEMS FOR FABRICATING THE SAME



(57) Abstract: A method of fabricating a doped metal oxide film comprising the steps of: (a) providing a semiconductor substrate in a vacuum chamber; (b) generating plasma comprising at least metal (M), oxygen (O) and dopant ions within said chamber in the presence of an inert carrier gas; (c) forming a doped metal oxide (MO) film on said substrate from said plasma; and (d) controlling, during step (c), the amount of O ions relative to said dopant ions within said plasma to form at least one of an n-type MO film and a p-type MO film on said substrate. A system for fabricating the doped metal oxide is also disclosed.



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