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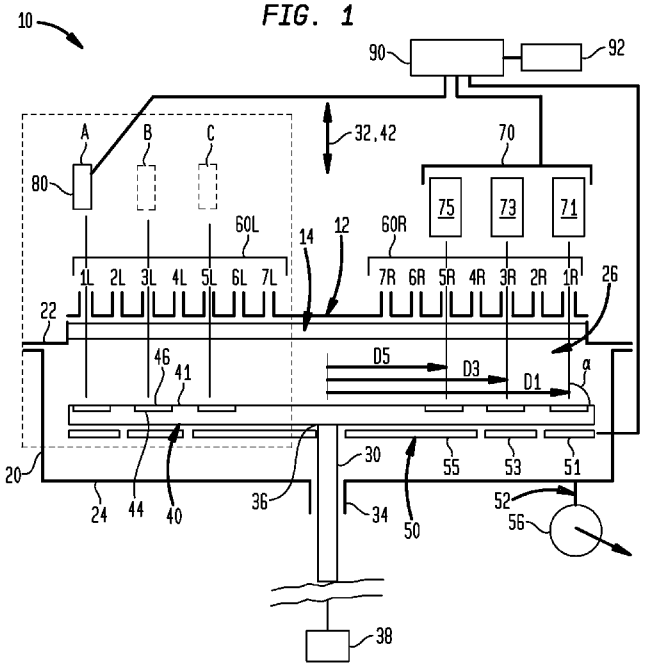
**Declarations under Rule 4.17**:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

*[Continued on next page]*

(54) Title: TEMPERATURE CONTROL FOR GaN BASED MATERIALS

FIG. 1




(57) Abstract: A method of in situ temperature measurement for a wafer treatment reactor such as a chemical vapor deposition reactor 10 desirably includes the steps of heating the reactor until the reactor reaches a wafer treatment temperature and rotating a wafer support element 40 within the reactor about a rotational axis 42. The method desirably further includes, while the wafer support element 40 is rotating about the rotational axis 42, obtaining first operating temperature measurements using a first operating pyrometer 71 that receives radiation from a first portion of the wafer support element, and obtaining first wafer temperature measurements using a wafer temperature measurement device 80 that receives radiation from at least one wafer 46, the wafer temperature measurement device located at a first position A.

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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