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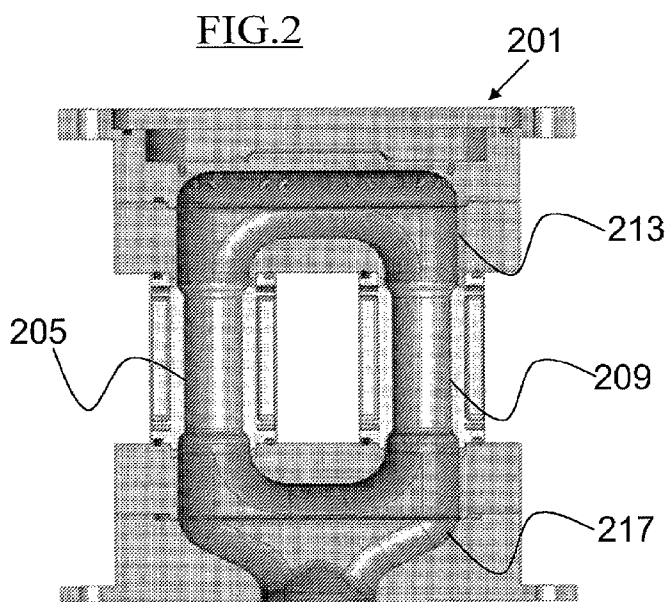
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(54) Title: TOROIDAL PLASMA CHANNEL WITH VARYING CROSS-SECTION AREAS ALONG THE CHANNEL



(57) Abstract: An assembly for adjusting gas flow pat-
terns and gas-plasma interactions including a toroidal
plasma chamber (201). The toroidal plasma chamber has
an injection member (213), an output member (217), a
first side member (205) and a second side member (209)
that are all connected. The first side member (205) has a
first inner cross-sectional area in at least a portion of the
first side member and a second inner cross-sectional area
in at least another portion of the first side member,
where the first inner cross-sectional area and the second
inner-cross-sectional area being different. The second
side member (209) has a third inner cross-sectional area
in at least a portion of the second side member and a
fourth inner cross-sectional area in at least another por-
tion of the second side member, where the third inner
cross-sectional area and the fourth inner-cross-sectional
area being different.