

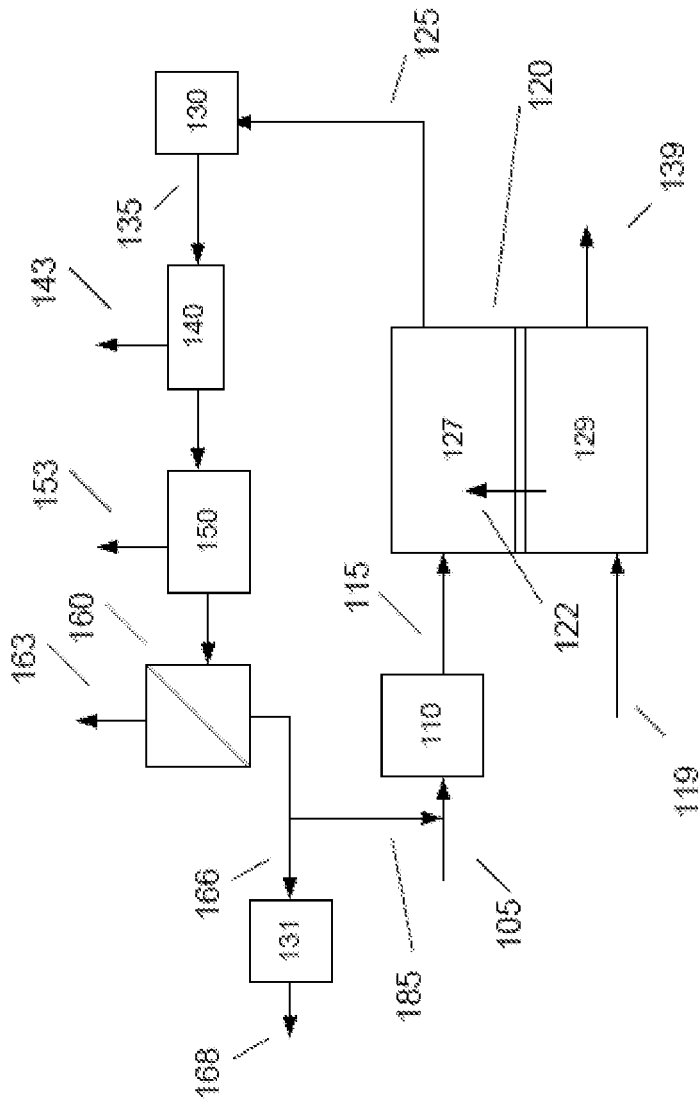


FIG. 1

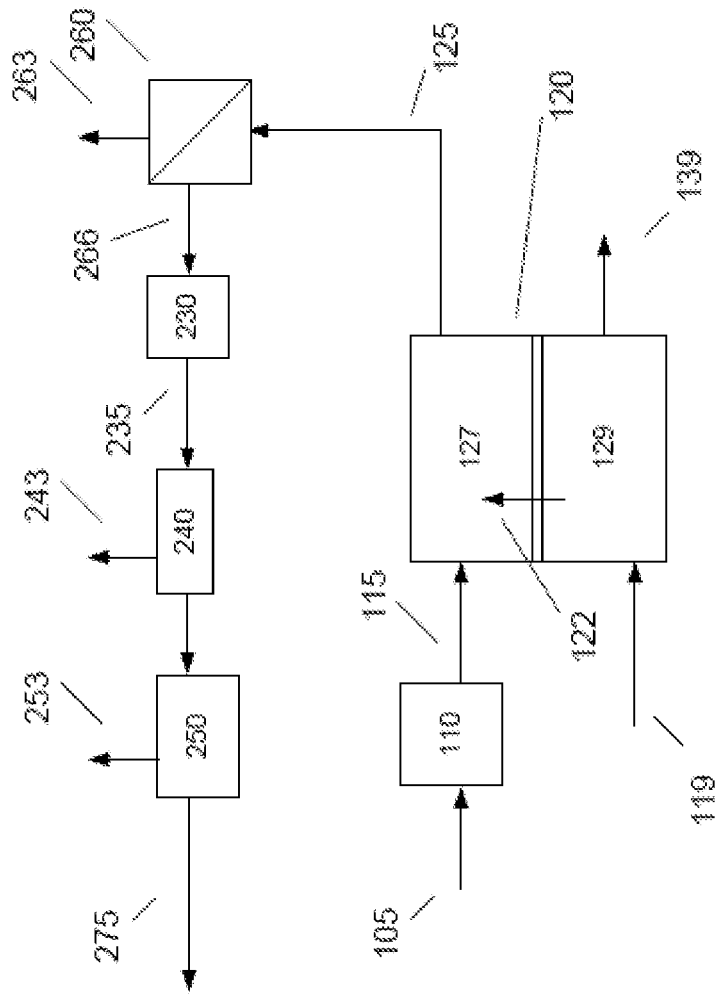


FIG. 2

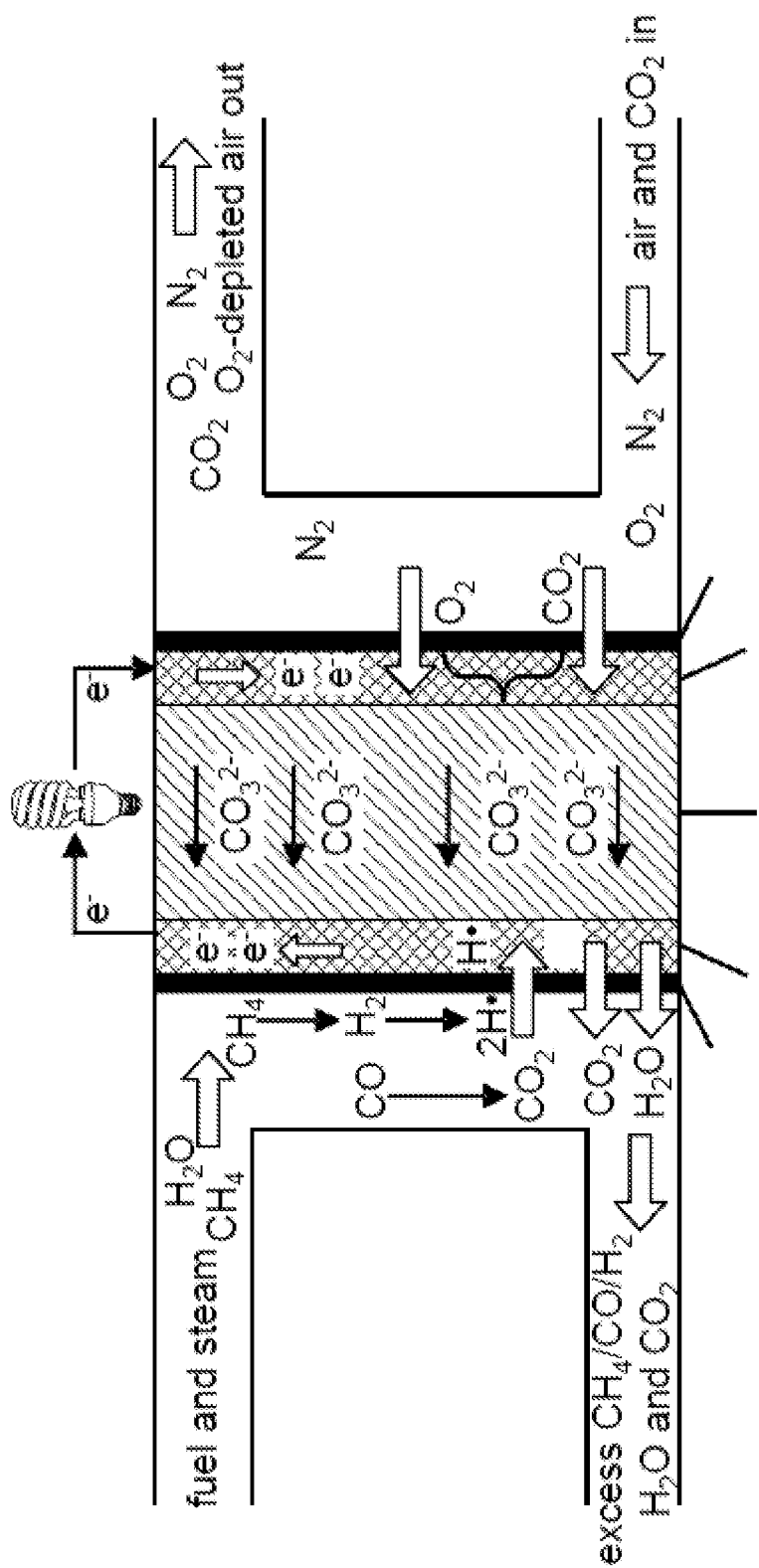


FIG. 3

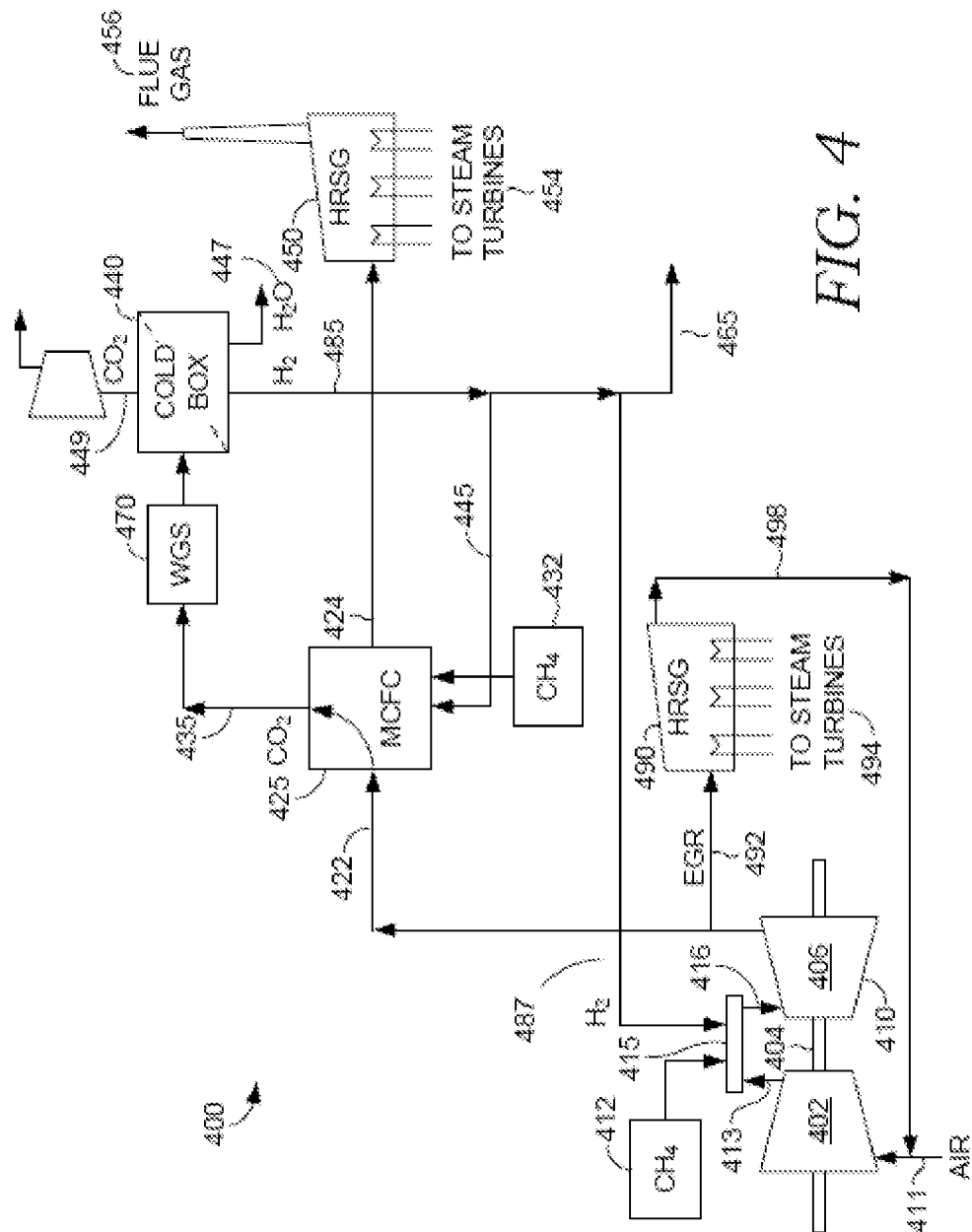


FIG. 4

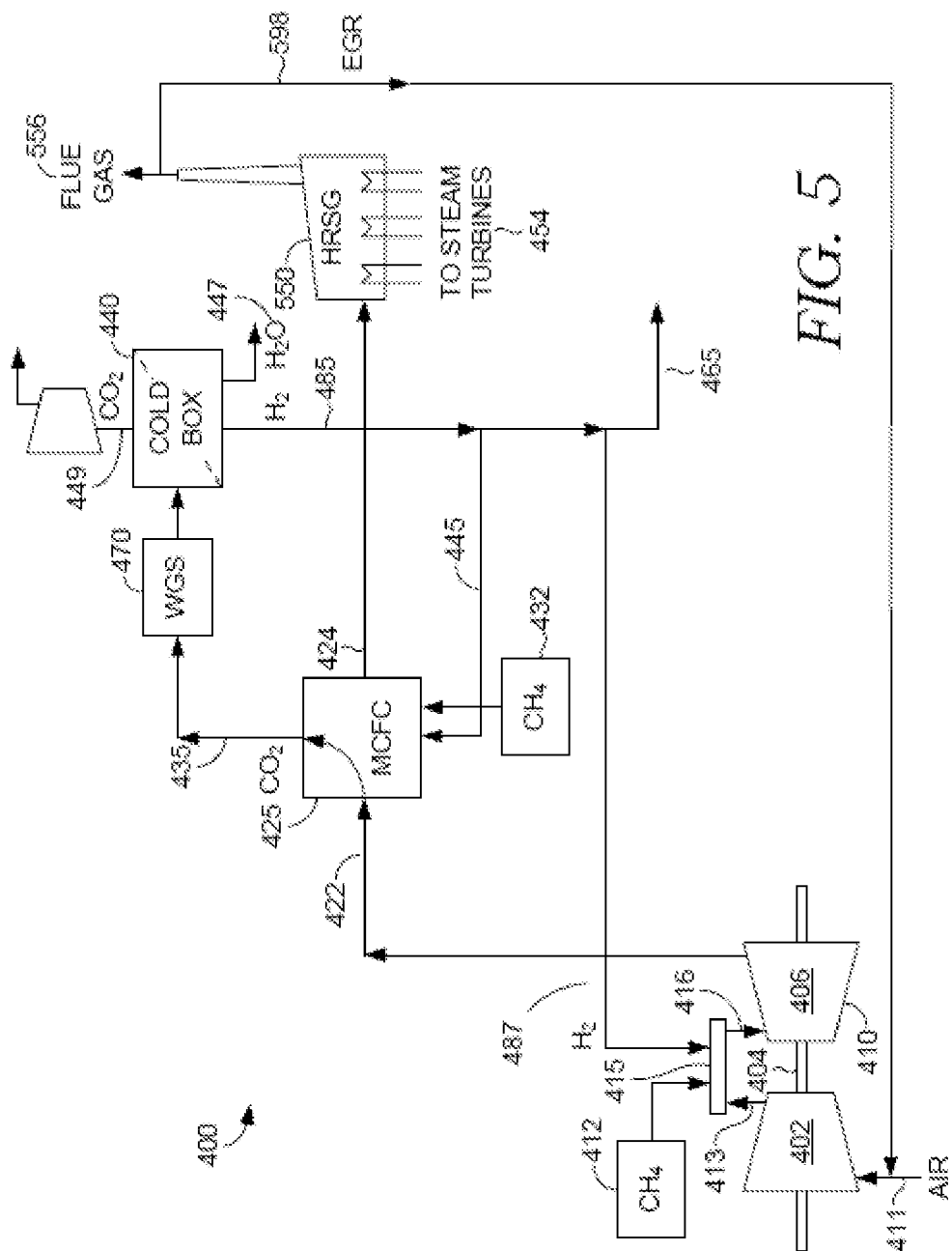


FIG. 5

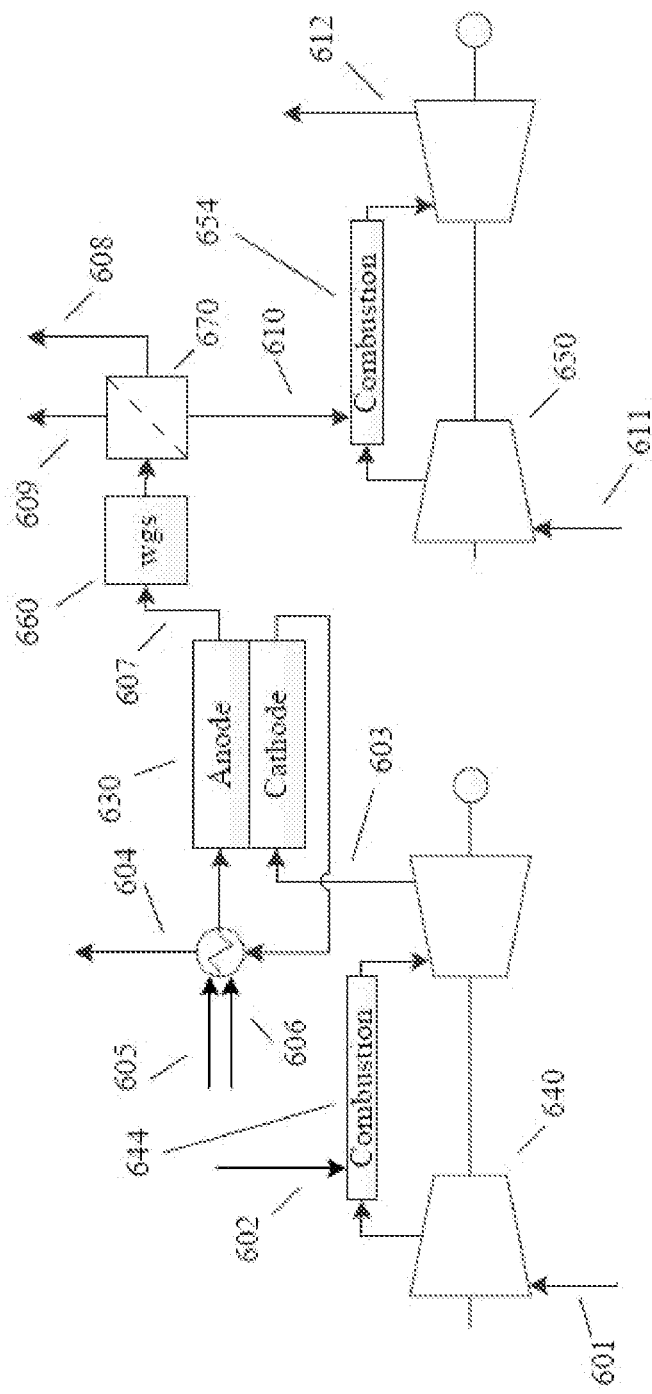


FIG. 6

7/7

Case	With H2 Turbine	Recycle to First Turbine	With H2 Turbine	Recycle to First Turbine	With H2 Turbine	Recycle to First Turbine	With H2 Turbine	Recycle to First Turbine
Fuel Utilization (%)	75%	75%	50%	50%	30%	30%	30%	30%
Steam to Carbon Ratio	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Exhaust Gas Recycle (%)	35%	35%	35%	35%	35%	35%	35%	35%
Water Gas Shift Reactors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internal Reforming (%)	20%	20%	20%	20%	20%	20%	20%	20%
MCFC CO2 Cathode Inlet Conc. (%)	6.11%	5.72%	6.11%	5.12%	6.54%	6.54%	4.53%	4.53%
MCFC CO2 Cathode Exhaust Conc. (%)	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
MCFC O2 Cathode Exhaust Conc. (%)	5.9%	6.2%	5.9%	6.6%	4.7%	4.7%	6.5%	6.5%
MCFC Voltage (V)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
MCFC Current Density (A/m2)	912	878	974	916	1197	1197	1061	1061
MCFC Area (k-m2)	184	175	172	144	154	154	105	105
CO2 Capture (%)	82.0%	80.7%	83.5%	80.0%	83.8%	83.8%	79.7%	79.7%
CO2 Capture (Mtons / year)	1.76	1.62	1.96	1.55	2.56	2.56	1.56	1.56
Area / Tons captured (k-m2*year / Mtons)	104.1	108.0	87.9	93.1	60.3	60.3	67.6	67.6
CO2 emissions (from cathode exhaust, lbs CO2 / MWhr)	153.2	147.8	144.0	160.2	113.3	113.3	185.3	185.3
Ratio H2: Reformable C (molar) in anode feed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N2 in anode feed (%)	0%	0%	0%	0%	0%	0%	0%	0%
Anode steam penalty (MW)	5.2	4.8	7.8	6.2	14.4	14.4	8.7	8.7
% turbine fuel that is H2 or CO (LHV basis)	0% / 100% *	6.6%	0% / 100% *	16.4%	0% / 95.4% *	0% / 95.4% *	34.5%	34.5%
Total net power (MW)	589	610	624	571	791	791	502	502
Electrical efficiency (%)	51.9%	57.7%	50.0%	55.4%	49.2%	49.2%	48.7%	48.7%

* Formatted as Primary Gas Turbine / H2 Fired Gas Turbine

FIG. 7