

1 results for (rankine engine)/TI/AB/IW/CLMS/DESC/ODES/OBJ AND (H05B-007/18)/IPC - Collection: FAMPAT

#		Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
1.		Plasma arc furnace and applications	CA2843645	2012-08-03	CUNNINGHAM* CUNNINGHAM STEPHEN L MA STEWART* STEPHEN L CUNNINGHAM & MARTIN A STUART STUART MARTIN A	2013-02-07	2013-02-07

A Plasma Arc Reformer for creating a useful fuel, such as Methanol, using any of Methane, Municipal Solid Waste, farm or forest waste, coal orchar rock from oil shale production, petrochemical hydrocarbons, (any carbon containing charge), water, and/or Municipal Sewage, as the source material. A High temperature Plasma Arc de-polymerizes the source material into atoms which, upon partial cooling, creates a gas stream rich in CO and H2 (syngas). Subsequent molecular filter and catalyst stages in the system remove contaminants and produce the output fuel. The system is closed loop with regard to the syngas production in that it recycles the residual unconverted gas and even the exhaust gases if desired. The large amount of heat produced is captured and converted to electric power using a supercritical CO2 Rankin cycle resulting in potentially high efficiencies.

