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- (71) **Applicant: EXXONMOBIL CHEMICAL PATENTS INC.** [US/US]; 5200 Bayway Drive, Baytown, TX 77520 (US).
- (72) **Inventors: ROONEY, Mark, A.;** 7006 Trimstone Dr., Pasadena, TX 77505 (US). **SPICER, David;** 5319 Del Monte Drive, Houston, TX 77056 (US). **MCVICKER, Bryan, D.;** 423 Dentation Dr., Baton Rouge, LA 70808 (US).
- (74) **Agent: CHEN, Siwen et al.;** Exxonmobil Chemical Company, Law Department, P.O. Box 2149, Baytown, TX 77522-2149 (US).

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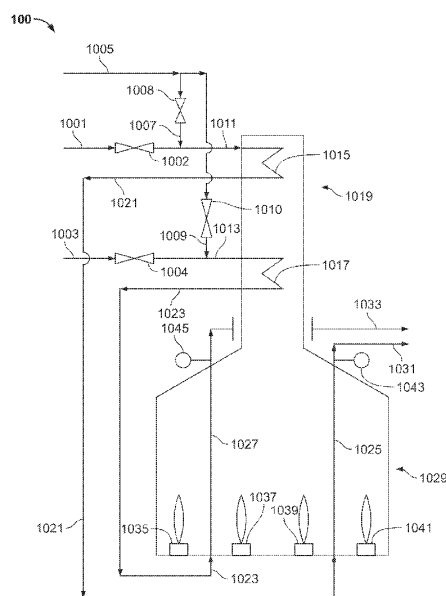
(54) **Title:** PROCESSES AND SYSTEMS FOR STEAM CRACKING HYDROCARBON FEEDS

FIG. 1

(57) **Abstract:** Processes and systems for steam cracking hydrocarbon feeds. The process can include introducing a first hydrocarbon feed into radiant coil(s) disposed within a first segment of a firebox to produce a first steam cracker effluent having a first coil outlet temperature. A second hydrocarbon feed can be introduced into radiant coil(s) disposed within a second segment of the firebox to produce a second steam cracker effluent having a second coil outlet temperature. The first and second segments can each include one or more burners providing heat thereto. The burner(s) in each segment can be operated at substantially the same firing rate such that an amount of heat produced by each burner can be substantially the same. A feed rate of the first hydrocarbon feed can be controlled based, at least in part, on a composition of the first hydrocarbon feed and the first coil outlet temperature.

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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