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(71) Applicant (for all designated States except US): **LUM-MUS TECHNOLOGY INC.** [US/US]; 1515 Broad Street, Bloomfield, NJ 07003-3096 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **VAN EGMOND, Cor, Franciscus** [US/US]; 6407 Cog Hill, Pasadena, TX 77505 (US). **SUNDARAM, Kandasamy, Meenakshi** [IN/US]; 101 Throckmorton Lane, Old Bridge, NJ 08857 (US).

(74) Agents: **LORD, Robert, P.** et al.; Osha · Liang LLP, 909 Fannin Street, Suite 3500, Houston, TX 77010 (US).

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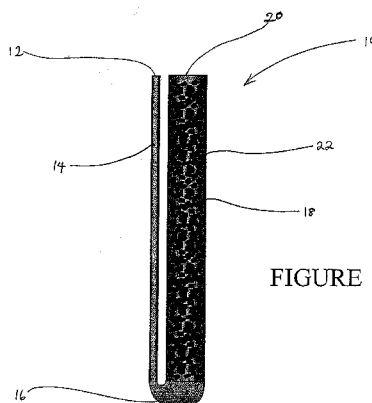


FIGURE 1

(57) Abstract: Randomly packing with filler material at least part of a pass in a coil used in a system for pyrolyzing hydrocarbon feedstock to lighter hydrocarbons. Randomly packing increases heat transfer and decreases the rate of coke build-up within the coil, yielding an improvement in overall system efficiency. Packing material can comprise or be treated with a suitable catalyst for increasing the rate of chemical decomposition, thus further improving system efficiency.

