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McLevish

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(54) **PARTIAL RADIAL HEAT EXCHANGER AND OXYGENATOR**

(56) **References Cited**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 281 days.

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(57) **ABSTRACT**

Methods of making a combination heat exchanger and oxygenator. A heat transfer tubing is wound about a core and a potting compound is applied to a portion of the wound tubing. The potting compound solidifies to form a potting structure defining an internal face substantially parallel with a longitudinal axis of the core. The assembly is cut along a line passing through the potting structure to define a core assembly having a cut face substantially parallel with the axis. The cut tubing forms a plurality of capillary tubes, each terminating at opposing, first and second ends, and each extending about the core along an arc angle of less than 360 degrees. An oxygenator bundle is formed as part of the core assembly and includes a plurality of gas exchange fibers. The core assembly is disposed within a housing having a blood inlet and a blood outlet.

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(58) **Field of Classification Search**

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See application file for complete search history.

20 Claims, 14 Drawing Sheets

