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(54) **METHODS FOR TREATING TISSUE MATERIALS**

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See application file for complete search history.

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(57) **ABSTRACT**

Methods for treating bulk bone tissue are provided. The methods comprise contacting bulk bone tissue or frozen bulk bone tissue with an effective amount of a supercritical fluid so as to dry the bulk bone tissue. In various embodiments, the supercritical fluid destroys contaminants such that the frozen bulk bone tissue is 99.9% substantially pure. In various embodiments, contaminants removed from the frozen bulk bone tissue include lipids, viruses, bacteria, pyrogens, prions, micro-organisms and/or pathogens. In some embodiments, the supercritical fluid causes a 3 log reduction of bacteria within the frozen bulk bone tissue.

18 Claims, No Drawings