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Willett

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(54) **COMPOSITIONS AND METHODS FOR IMPROVING TOUGHNESS OF IRRADIATED STERILIZED BONE ALLOGRAFTS**

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See application file for complete search history.

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(57) **ABSTRACT**
The present invention relates to compositions, methods, kits and systems employing irradiation activated agents to improve or increase or prevent loss of toughness, work-to-fracture, post-yield toughness, fracture toughness and/or fatigue strength of a bone allograft on exposure to radiation. The irradiation activated agent can be an agent that increases crosslinking of collagen in bone during irradiation, for example ribose, 2-hydroxytetrahydropyran or ascorbate.

3 Claims, 23 Drawing Sheets

