Title (en)

METHODS AND DEVICES FOR UTILIZING THERMAL ENERGY TO BOND, STAKE AND/OR REMOVE IMPLANTS

Title (de)

VERFAHREN UND VORRICHTUNGEN ZUR AUSNUTZUNG VON WÄRMEENERGIE ZUM VERBINDEN, EINSETZEN UND/ODER ENTFERNEN VON IMPLANTATEN

Title (fr)

PROCÉDÉS ET DISPOSITIFS POUR UTILISER L'ÉNERGIE THERMIQUE POUR FIXER, INSÉRER ET/OU RETIRER DES IMPLANTS

Publication

EP 2197371 A4 20150408 (EN)

Application

EP 08828652 A 20080829

Priority

- US 2008074941 W 20080829
- US 96896907 P 20070830

Abstract (en)

[origin: WO2009029908A1] A fastener including material meltable at a temperature not likely to produce substantial tissue necrosis of neighboring body tissue, or "bondable material", is caused to soften or melt by the application of vibratory energy, advantageously including ultrasonic vibratory energy. Vibratory energy is applied using a horn applied to the fastener, and tuned to generate vibratory motion proximate the horn, or at a point distal to the horn, for example at a point along the fastener body, or at the end of the fastener. Melted or softened material of the fastener bonds to a contacting surface, which may be body tissue or another implant. The contacting surface may also include bondable material, softenable or meltable through vibratory energy derived from contact with the fastener. To improve a bond, particularly where dissimilar materials are to be bonded, one or more contacting surfaces is provided with a roughened or porous surface.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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Designated contracting state (EPC)

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