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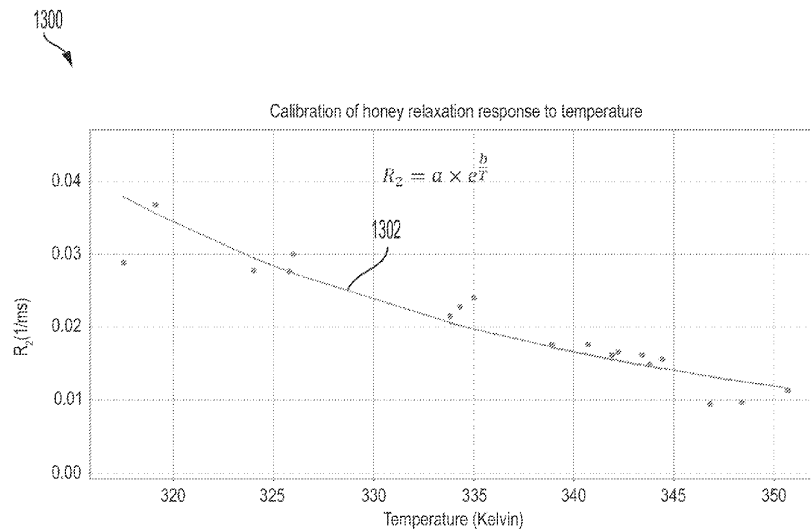


FIG. 13

(57) Abstract: Disclosed is a magnetic imaging apparatus comprising a housing comprising a face, wherein a first axis extends through the face into a field of view, and an array of permanent magnets positioned in the housing, wherein an inherent gradient magnetic field extends from the array of permanent magnets relative to the first axis into the field of view. The magnetic imaging apparatus further comprises a gradient coil set, at least one radio frequency coil, a power circuit, a memory storing a relaxation model for a tissue type, and a control circuit. The control circuit is configured to obtain a T2 data set related to a structure positioned in the field of view, generate a T2-weighted image of the structure, and convert the T2-weighted image of the structure to a heat map based on the relaxation model for the tissue type.

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