

# 1. WO2021064446 - METHOD FOR PROTECTING BIOLOGICAL OBJECTS FROM THE NEGATIVE INFLUENCE OF TECHNOGENIC ELECTROMAGNETIC RADIATION



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## Title

**[EN]** METHOD FOR PROTECTING BIOLOGICAL OBJECTS FROM THE NEGATIVE INFLUENCE OF TECHNOGENIC ELECTROMAGNETIC RADIATION

**[FR]** PROCÉDÉ DE PROTECTION D'OBJETS BIOLOGIQUES CONTRE L'INFLUENCE NÉGATIVE D'UN RAYONNEMENT ÉLECTROMAGNÉTIQUE TECHNOGÈNE

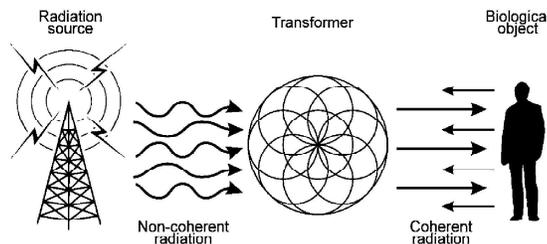


FIG. 1

## Abstract

**[EN]** The method for protecting biological objects (BO) from the negative influence of technogenic electromagnetic (EM) radiation in a wide range of frequencies, which consists of creating a coherent field in the form of a fractal matrix around a biological object using a fractal-matrix as coherent transducer based on a self-affine annular raster lattice (resonator) formed from ringed topological lines, which create a slit-like raster, and is a universal Fourier transformer that harmonizes the amplitude, phase, frequency and polarization vector of external technogenic radiation and the BO's own EM radiation. The transformation of external radiation occurs in accordance with the Fourier transform with the formation of a coherent matrix of EM wave superpositions. The coherent matrix does not conflict with the BO. The transformation does not affect the functioning of the technical devices. The coherent transformer can be placed on the BO, or between the BO and the source.

**[FR]** L'invention concerne un procédé de protection d'objets biologiques [OB] contre l'influence négative d'un rayonnement électromagnétique technogène [EM] dans une large plage de fréquences, qui consiste à créer un champ cohérent sous la forme d'une matrice fractale autour d'un objet biologique à l'aide d'une matrice fractale en tant que transducteur cohérent sur la base d'un réseau de trame annulaire auto-affine [résonateur] constitué de lignes topologiques annelées, qui crée une trame de type fente, et qui est une transformée de Fourier universelle qui harmonise l'amplitude, la phase, la fréquence et le vecteur de polarisation du rayonnement technogène externe et du rayonnement EM propre de l'OB. La transformation du rayonnement externe se produit selon la transformée de Fourier avec la formation d'une matrice cohérente de superpositions d'ondes EM. La matrice cohérente n'est pas en conflit avec l'OB. La transformation n'affecte pas le fonctionnement des dispositifs techniques. La transformée cohérente peut être placée sur l'OB, ou entre l'OB et la source.

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# 1. WO2020026005 - METHOD FOR GENERATING PARAMETRIC SOUND AND MEANS FOR CARRYING OUT SAID METHOD

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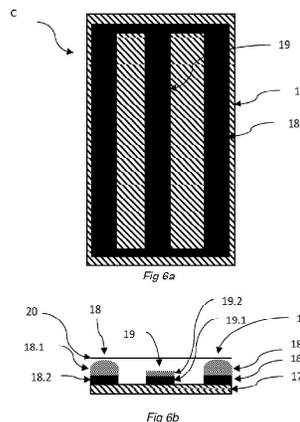
English [EN]

## Designated States

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## Title

**[EN]** METHOD FOR GENERATING PARAMETRIC SOUND AND MEANS FOR CARRYING OUT SAID METHOD  
**[FR]** PROCÉDÉ DE GÉNÉRATION DE SON PARAMÉTRIQUE ET MOYEN DE MISE EN ŒUVRE DUDIT PROCÉDÉ



## Abstract

**[EN]** The present invention discloses a method for producing parametric sound using parametric sound system which is based on ultrasonic electrostatic transducers. It comprises modulation of a carrier ultrasonic signal with a processed audio signal in audio signal processor comprising adaptive frequency filtering based on the audio signal level, dynamic range compression, square root operation, amplification of the modulated ultrasonic signal using a D-class amplifier, driving an electrostatic transducer and generating modulated ultrasonic waves into the air. The electrostatic transducer for the parametric sound system comprises a specific back plate structure that improves electromechanical efficiency of the transducer and also enables realization of a phased array on a single back plate. The disclosed manufacturing method of the electrostatic transducer comprises producing sets of electrodes on the surface of the back plate forming individual cells.

**[FR]** La présente invention concerne un procédé de production de son paramétrique à l'aide d'un système sonore paramétrique qui est basé sur des transducteurs électrostatiques ultrasonores. Le procédé comprend la modulation d'un signal ultrasonore de porteuse avec un signal audio traité dans un processeur de signal audio comprenant un filtrage de fréquence adaptatif basé sur le niveau de signal audio, une compression de plage dynamique, une opération de racine carrée, l'amplification du signal ultrasonore modulé à l'aide d'un amplificateur de classe D, le pilotage d'un transducteur électrostatique et la génération d'ondes ultrasonores modulées dans l'air. Le transducteur électrostatique pour le système sonore paramétrique comprend une structure de plaque arrière spécifique qui améliore l'efficacité électromécanique du transducteur et permet également la réalisation d'un réseau à commande de phase sur une seule plaque arrière. Le procédé de fabrication du transducteur électrostatique selon l'invention comprend la production d'ensembles d'électrodes sur la surface de la plaque arrière formant des cellules individuelles.

## Related patent documents

[CN112469509](#) [EP3829785](#) [US20210264894](#) [JP2021532633](#)

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(54) **COOKWARE PLACEMENT BY HEATING CONTROL LOOP IN AN INDUCTION COOKING SYSTEM**

(57) This invention discloses a method for cookware placement (3) on an induction cooktop surface (10) using the temperature control loop (15). The method uses readings from the thermal sensor (11), and another sensors, e. g., 1-, 2- or 3-axis-accelerometer (12), microphone and/or wire loop (13), with modulating the heating power to induction coils and measuring respective signals in the cookware (3) for its placement identification. The alternating magnetic field vibrates the magnetic base of cookware (3) thus providing a signal to the accelerometer. The wire loop (13) senses and measures strength of alternating magnetic field having a priori known frequency, states relevant to the heating power On or Off states and also the modulation states of the heating power signal. Therefore, said vibrations, the measured magnetic and/or electric field strength and their modulations assist at least for identification of cookware placement, i.e., which cookware item is on which heating area and if placed correctly.

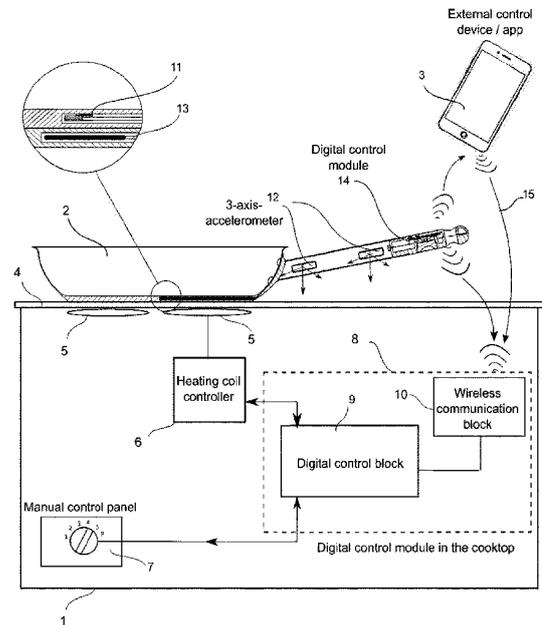


FIG. 1



(11) **EP 3 940 174 A1**

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Remarks:

A request for correction of the description has been filed pursuant to Rule 139 EPC. A decision on the request will be taken during the proceedings before the Examining Division (Guidelines for Examination in the EPO, A-V, 3.).

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(54) **CONSTRUCTION OF THE SEGMENTAL FENCE AND METHOD OF ITS ASSEMBLY**

(57) The present invention discloses a system and a method of assembling a fence segment of a profiled sheet material (e.g., sheet metal). The fence segment (1) consists of a set of horizontal crossbars (4) made of profiled sheet metal, the folding cross-sectional shape of which is optional. In addition, the fence segment (1) comprises connecting elements (5) for securing the rigid horizontal crossbars (4) between two vertical trough-shaped profiles (6) attached to the vertical poles (3) of the fence. Horizontal crossbars (4) can have different shapes of the sheet metal profile, selected according to the desired fence design and functionality (visibility, sunlight transmission, etc.). The assembled fence segment (1) is resistant to climatic and mechanical effects, such as sudden changes in temperature, humidity, or wind. The method of assembling and disassembling the fence segments is efficient and simple, it does not require special tools and skills during assembly, and the assembly process can be performed by one person.

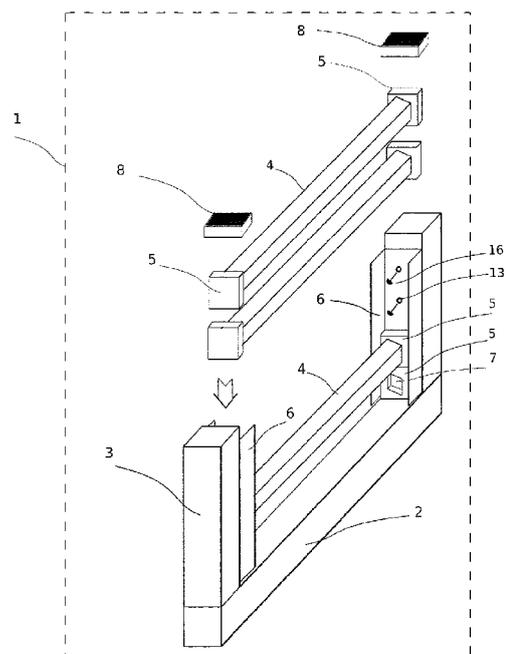


Fig. 2

**EP 3 940 174 A1**



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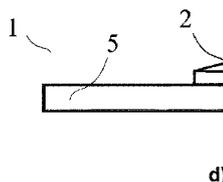
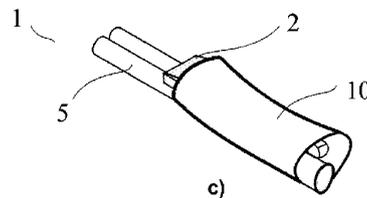
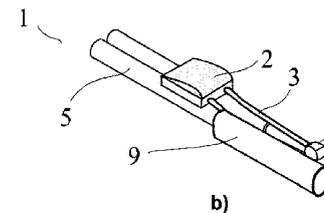
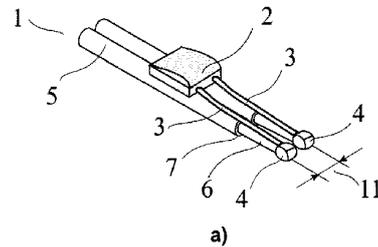
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(54) **THERMAL SENSOR WIRE AND METHOD OF ASSEMBLING THE SAME**

(57) The invention discloses a method of assembling a thermal sensor wire comprising an RTD element and a wire and encapsulating into a thermally conductive flexible insulator. The method is simple and useful for assembling thermal sensor wires for temperatures in range to at least of 400°C, for example, in cookware applications. This invention distinguishes from the state-of-art concept that the RTD element has to be placed as an extension of the wire. The RTD element is aligned to the wire conductors with straight lead-ins of the RTD element being positioned to the same direction, the RTD element is laid onto the wire; the lead-ins and conductors welded; further, the RTD element and wire are encapsulated into a thermally resistant flexible insulator. Any thermal expansion of materials around the RTD element assembly does not cause stress on the welded joints. This thermal sensor wire assembly is easier to manufacture, it requires fewer steps and adding the insulation is easier.



Dokumentą elektroniniu  
parašu pasirašė  
**OTILJA KLIMAITIENĖ**  
Data: 2022.06-28 13:39:48  
Pašifintis: Viešieji pirkimai  
Vieta: Vilnius  
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Figure 3

**EP 3 772 638 A1**