

35. A system for inducing acoustic resonance in a biologic structure to affect functions characterized in that the system comprises:
- a) means for generating an acoustic signal;
 - b) means for transmitting the acoustic signal to the biological structure; and
 - 5 c) means for controlling the power level of the acoustic signal to affect functions of the biologic structure.
36. The system according to claim 35 characterized by further comprising:
- a) means for generating an electromagnetic signal; and
 - b) means for transmitting the electromagnetic signal to the biologic structure.
- 10 37. A system for determining induction of acoustic resonance in a structure characterized by the steps comprising:
- a) means for generating electromagnetic energy equivalent to an acousto-EM signature;
 - b) means for transmitting the electromagnetic energy to the structure;
 - 15 c) means for receiving a signal from the structure after the electromagnetic energy has interacted with the structure; and
 - d) means for determining induction of acoustic resonance in the structure.
38. A method for determining induction of acoustic resonance in a structure characterized by the steps comprising:
- 20 a) irradiating the structure with electromagnetic energy equivalent to an acousto-EM signature;
 - b) receiving a signal from the structure after the electromagnetic energy has interacted with the structure; and
 - c) determining induction of acoustic resonance in the structure.
- 25 39. A method to affect the functioning of a biologic structure having a piezoelectric nature acting as a living transducer characterized by applying electromagnetic energy to the biologic structure with a piezoelectric nature, the electromagnetic energy having at least one frequency including the resonant frequency of the biologic structure to induce acoustic resonance within the living transducer, the energy being applied at a power output level
- 30 sufficient to affect functioning of the biologic structure.



FIG. 1



FIG. 2



FIG. 3



FIG. 4



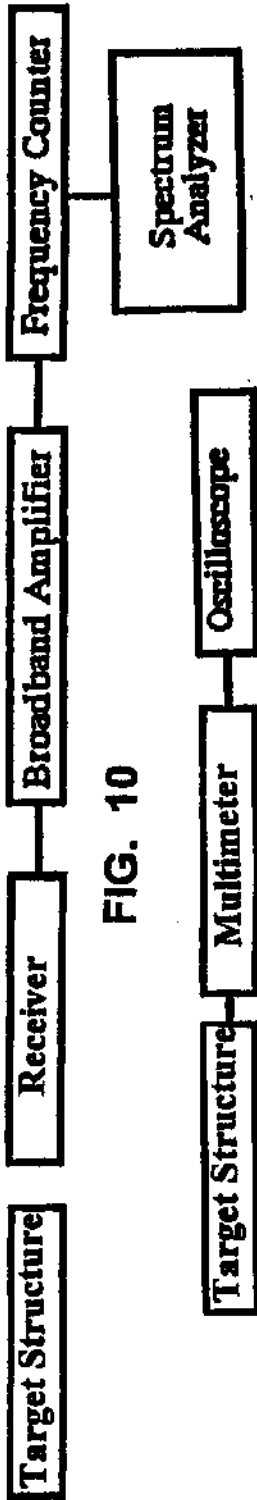


FIG. 10



FIG. 11

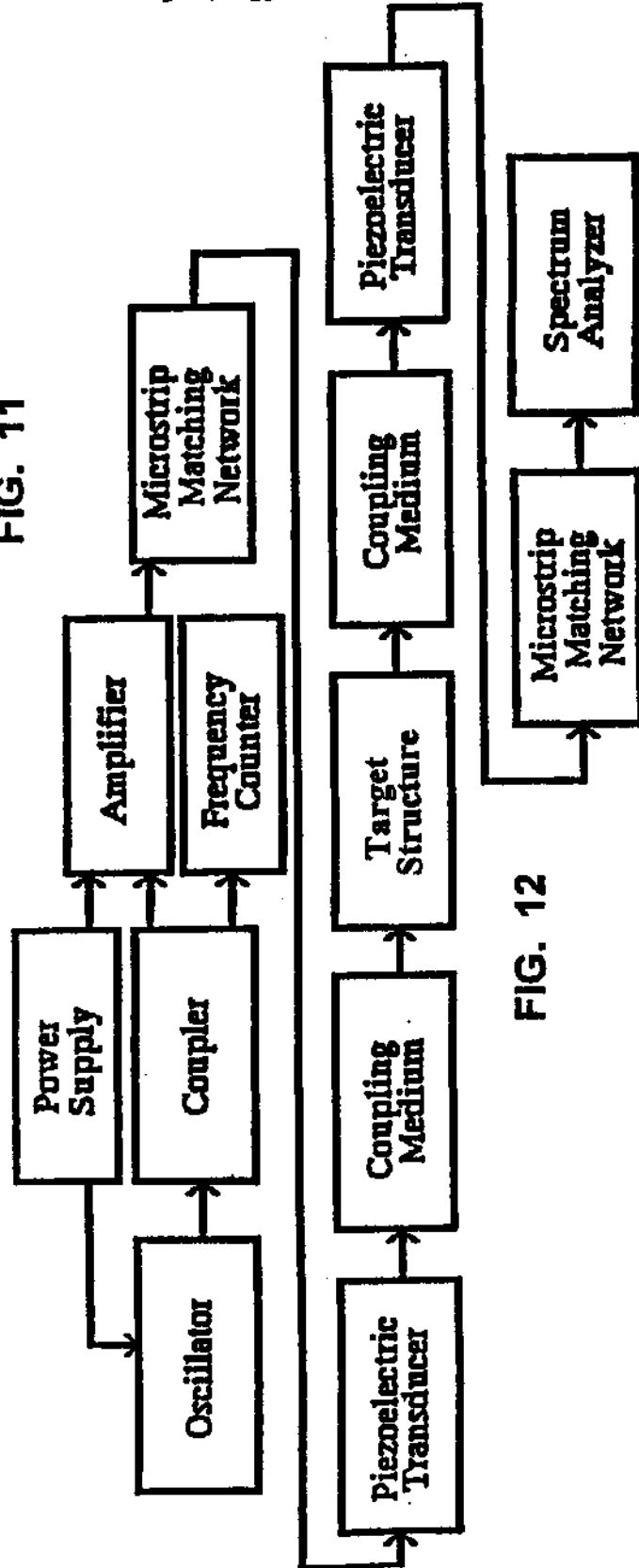


FIG. 12

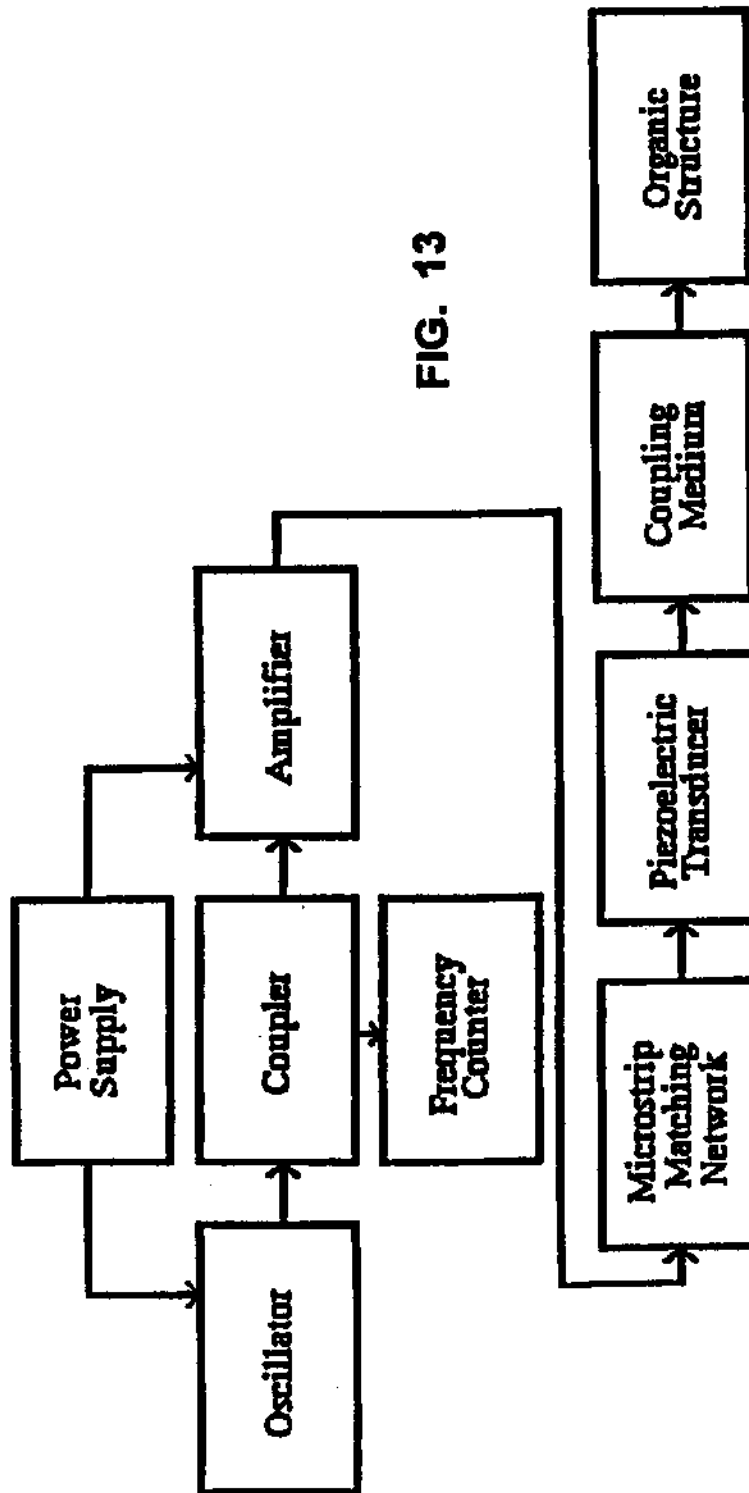


FIG. 13