~~Amended~~ Claims:

1. Method for the treatment of a mineral oil for increasing the portion of low-boiling fractions, wherein said treatment comprises

- generating pressure waves having a first frequency,
- subjecting the liquid to said pressure waves in a region of application by passing the liquid through a pressure wave generator,
- exciting a system comprising the pressure wave generator and the pipings leading to and leading away from the pressure wave generator and the liquid contained therein, including at least one pipe flowed through by the treated liquid and immediately following said region of application, to oscillations of a second frequency, which is a resonance frequency of the excited system,
- wherein the resonance state is achieved by withdrawing a portion of the liquid after passing said region of application and before reaching the tank and refeeding said withdrawn portion of the liquid to said region of application via a recirculation pipe, the pressure in the recirculation pipe being adjusted by the aid of at least one adjustable throttle valve,
- feeding the so-treated liquid to a tank.

2. Method according to claim 1, characterized in that the first frequency is chosen to be between 2 kHz and 20 kHz.

3. Method according to any one of claims 1 or 2, characterized in that the second frequency is applied to the excited system by the aid of an auxiliary oscillator.

4. Method according to claim 1, 2 or 3, characterized in that the pressure wave generator takes the form of a rotor flowed through by the liquid to be treated and mounted in a housing.

5. Method according to any one of claims 1 to 4, characterized in that the pressure in the recirculation pipe is adjusted by the aid of two continuously adjustable throttle valves.

6. Device for the treatment of a liquid for increasing the portion of low-boiling fractions, in particular for carrying out the method according to any one of claims 1 to 5, comprising a pressure wave generator for generating a pressure wave having a first frequency, said pressure wave generator being arranged to subject the liquid to said pressure waves in a region of application, characterized in that means for exciting a system to oscillations of a second frequency are provided, which is the resonance frequency of the excited system, wherein the excited system comprises the pressure wave generator and pipings leading to and leading away from the pressure wave generator and the liquid contained therein, including at least one pipe arranged to be flowed through by the treated liquid and arranged to immediately follow said region of application, wherein a recirculation pipe is provided for withdrawing a portion of the treated liquid downstream of the pressure wave generator at a site of withdrawal and for refeeding the treated liquid to the pressure wave generator at a site of refeed upstream of the pressure wave generator, whereby at least one adjustable throttle valve is arranged in the recirculation pipe for adjustment of pressure.

7. Device according to claim 6, characterized in that the pressure wave generator is connected via flowed-through pipings with the liquid to be treated, in particular mineral oil.

8. Device according to claim 6 or 7, characterized in that pressure wave generator comprises a rotor that is flowed through by the liquid to be treated and that is mounted in a housing, the rotor being mounted for rotation and is embodied as a disc with a ring-shaped wall, in which a plurality of openings is arranged at even distances from each other along the ring-shaped wall and a stator arranged coaxially to the rotor is mounted to form an annular gap between the stator and the ring-shaped wall of the rotor.

9. Device according to claim 8, characterized in that the rotor has a disc arranged coaxially with and inside the ring-shaped wall, the disc with a plurality of openings at even distances from each other and being rotatable against the ring-shaped wall for generating pressure waves of an additional frequency.

~~10. Method for adjusting the operating point of a pressure wave generator for treating a liquid, in particular a mineral oil, with pressure waves of a first frequency for increasing the portion of low-boiling fractions in the liquid, characterized in that the pressure wave generator is communicated with a liquid, in particular water, via flowed-through pipings and the frequency of application is varied and the operating point is determined as a maximum in temperature rise of the liquid after passing the pressure wave generator as a function of the frequency of application.~~