We claim:

1. A vibrating meter (100) operable to determine at least one of a viscosity and a density of a fluid therein, comprising:

a driver (112);

a vibrating element (104) vibratable by the driver (112), and operable to be in contact with the fluid;

a vibrating sensor (114) configured to detect a vibrational response of the vibrating element (104);

meter electronics (118) configured to send an excitation signal to the driver (112) and to receive the vibrational response, and further configured to measure a first vibrational response point and to calculate a second vibrational response point of the vibrational response, wherein the second vibrational response point is one of interpolated and extrapolated from other measured response points, and wherein meter electronics (118) is further configured to calculate a Q of the vibrating element (104) using the first vibrational response point and the second vibrational response point, wherein the first vibrational response point and a second vibrational response point of the vibrational response correspond to the same moment in time, and wherein the meter electronics (118) is further configured to determine a viscosity of the fluid using the Q.

2. The vibrating meter (100) of claim 1, wherein the first vibrational response point comprises one of a leading 3dB bandwidth measurement point (F_1) and a trailing 3dB bandwidth measurement point (F_2), and the second vibrational response comprises one of a leading 3dB bandwidth measurement point (F_1) and a trailing 3dB bandwidth measurement point (F_2), and the second vibrational response point is different from the first vibrational response point.

3. The vibrating meter (100) of claim 2, wherein the first and second vibrational response points comprise a frequency.

4. The vibrating meter (100) of claim 2, wherein the first and second vibrational response points comprise a time period.

5. The vibrating meter (100) of claim 1, wherein the vibrating element (104) is cantilevered.

6. The vibrating meter (100) of claim 1, wherein the other measured response points comprise at least two points.

7. A method of determining a viscosity or a density of a fluid using a vibrating meter (100) comprising:

sending an excitation signal to a driver (112);

driving a vibrating element (104) with the driver (112);

detecting vibrations of the vibrating element (104); characterized by:

measuring a first vibrational response point of the vibrational response;

calculating a second vibrational response point of the vibrational response, wherein the second vibrational response point is one of interpolated and extrapolated from other measured response points;

wherein the first vibrational response point and a second vibrational response point of the vibrational response correspond to the same moment in time;

calculating a Q of the vibrating element (104) using the first vibrational response point and the second vibrational response point; and

determining a viscosity of the fluid using the Q.

8. The method of claim 7, wherein the first vibrational response point comprises one of a leading 3dB bandwidth measurement point (F_1) and a trailing 3dB bandwidth measurement point (F_2), and the second vibrational response comprises one of a leading 3dB bandwidth measurement point (F_1) and a trailing 3dB bandwidth measurement point (F_2), and the second vibrational response point is different from the first vibrational response point.

9. The method of claim 7, wherein the first and second vibrational response points comprise a frequency.

10. The method of claim 7, wherein the first and second vibrational response points comprise a time period.

11. The method of claim 7, wherein the other measured response points comprise at least two points.