Twin-T oscillator

This circuit produces an extremely low distortion sine wave, in spite of the non-linear devices used for amplitude limiting (D1 and D2). The reason is first that distortion (harmonics) is fed to the minus input of the opamp with far less loss than to the plus input, severely attenuating them. Second, this oscillator rides a delicate balance between negative and positive feedback. This means that only a small amount of non-linearity is needed to stabilize the amplitude. To minimize distortion, R5 must be a high value.

Although a bit more complex than the Wien bridge oscillator, the amplitude of this oscillator is much easier to vary.

