



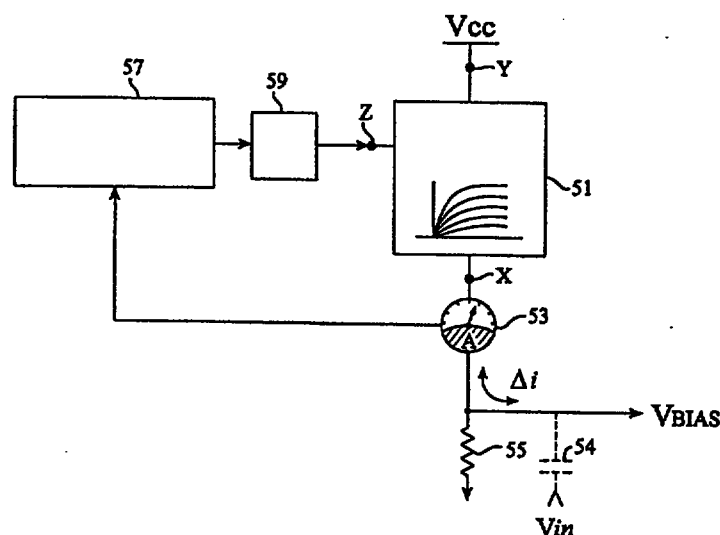
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(54) Title: **HIGH IMPEDANCE BIAS CIRCUIT FOR AC SIGNAL AMPLIFIERS**



(57) Abstract

The present invention discloses an integrated constant bias voltage generator using only active device to simulate a high impedance node, as seen from a capacitively coupled input signal V_{IN} . A reference current source (56) and an active nonlinear device (51), such as a MOS transistor (91), are coupled in series between VCC and ground with the drain electrode X of the nonlinear device (51) being the constant bias voltage output V_{BIAS} . An input signal V_{IN} capacitively coupled to said drain electrode X introduces an error current Δi monitored by a current monitoring means (58). A feedback means (57) responsive to the current monitoring means (58) modulates the control input Z of the nonlinear device (51) to select an I_{XY} vs. V_{XZ} characteristic current-voltage curve that maintains the V_{XZ} voltage of the nonlinear device (51) at its current level in spite of changes in its I_{XY} current due to the error current Δi . The feedback means (57) also compensates for voltage fluctuations in VCC.