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Approximate Approach

Sommario/riassunto	The 34 chapters of the 2nd edition of How to Gain Gain give a detailed insight into a collection (54) of the most common gain producing, constant current generating possibilities, and electronic noise creation of triodes for audio pre-amplifier purposes. These chapters also offer complete sets of formulae to calculate gain, frequency and phase responses, and signal-to-noise ratios of certain building blocks built-up with this type of vacuum valve (tube). In all cases detailed derivations of the gain formulae are also presented. All what is needed are the data sheet valve characteristic figures of the triode's mutual conductance, the gain factor and the internal plate (anode) resistance. To calculate frequency and phase responses of gain stages the different data sheet based input and output capacitances have to be taken into account too. To calculate transfer functions and signal-to-noise ratios for any kind of triode driven gain stage, including all its bias setting, frequency, phase, and electronic noise influencing components, example Mathcad 11 worksheets as an essential simulation tool for each chapter allow easy follow-up and application of the respective formulae. Free download of all worksheets is guaranteed from the editor's web-site.