Subject: cascodes
Posted by Thrint on Mon, 25 Jul 2005 23:44:20 GMT
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From a few cascode-able valves like 6BQ7 and 6DJ8, the schematic shows a pair of triodes stacked on top of each other and the upper grids attached to a voltage divider reference.The composite valve behaves like a pentode. So what happens if you sub the top triode for a pentode? Use the same voltage divider for the control grid, dropping R and bypass to its cathode for g2 and what does it do now?How to model this composite? I know how to gneerate the composite's plate curves for any pair of triodes, but the triode/pentode combo looks a bit more complex...thanks,Douglas

Subject: Penscodes?
Posted by Damir on Tue, 26 Jul 2005 09:39:23 GMT
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Altough I didn`t try it, IMO - pentode can be implemented (little problem with g2 voltage, but some people use pentode for "upper" tube in mu-follower, or like active load). But, IME - gain of pentode depends very little of "upper" tube. A~gm1*Rl, where gm1 is gm of the "lower" tube.Composite model for "penscode" - I have no idea, maybe SPICE it first and see what PC says...

Subject: Re: Penscodes?
Posted by Damir on Tue, 26 Jul 2005 11:38:02 GMT
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Little correction, above sentence is:IME - gain of cascode depends very little of "upper" tube.BTW - Doug, besides "penscode" - do you work on something?

Subject: Re: Penscodes?
Posted by Thrint on Sun, 31 Jul 2005 22:26:50 GMT
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Hey-Hey!!!,I have a triode on the bottom, and have installed a pentode on top. Actually, I just turned the upper triode back into a pentode with a dropping R to its g2, and a cap between g2 and cathode. I have a feeling I have turned the composite circuit into somthing with good AC impedance, or horizontal plate lines. Even better than the traditional triode-on-a-triode cascode.The upper element of the cascode does do one important thing, it determines where the

horizontal, pentode-ish plate characteristics start, relative to the Ec2 voltage. I suspect that the pentode offers a lower voltage start, and more horizontal when they happen, set of plate characteristics.And I have a day job which gets in the way of serious experimentation.regards,Douglas