
Subject: New "Tube" Books by "Elektor"

Posted by [FL152](#) on Wed, 27 Apr 2011 12:18:15 GMT

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Well, this one is a relatively new one. Dutch and German versions were out a couple of years ago, and the English version finally arrived by the end of 2010.

I bought the first Menno`s book in English „Transformers and Tubes in Power amplifiers" about 15 years ago (huh, time flies). It was one of the first „serious", new technical books about tube audio, and it was an „eye opener" for me.

In short form, together with some technical papers on the „Plitron" pages, it teaches the whole DIY community about output transformers, and their interactions with output tubes.

The second English book, „Modern High-End Valve Amplifiers" available about 2000. gives the same, and many new information. It didn`t contain everything, like some RDH-form, but concentrated on some Menno`s work about toroidal transformers, and possible DIY implementation.

The newest book, „High-End Valve Amplifiers 2" gives some new material, and new thoughts about some old subjects.

In the first chapter, about tubes, it gives some research about „modelling" triodes and pentodes, about Child-Langmuir equation and its limitations. Interesting for the readers involved in various SPICE models and mathematical lovers, but for more practical DIY-ers, sadly there are no final „recipes" or tube SPICE models.

In 2nd Chapter, there is more about tube/OPT setup, A - A/B class (missed in old publications); current model is used, as graphical method by Thompson.

The third chapter is about various OPT/tubes coupling - UL, cathode feedback, etc. Fourth chapter deals with frequency / phase domain, how the author tried to get an „optimum tuning". Fifth chapter is about feedback.

Other chapters contain less theoretical and more practical themes - various amplifiers and preamplifiers, thoughts and experiments, not just the technical side, but also sound-based. There are some new and interesting themes, for example auto-bias circuit, some discussions about ESL, RIAA preamp, etc.

I`m a bit confused by this book. There is a lot of mathematics that I didn`t check, there are many diagrams, formulas and tables. Graphics can be better, but it isn`t the point. The point is possible practical use of this knowledge / informations by „average" DIY-er. Obviously, the author cares for that aspect and gives some very basic DIY projects together with more advanced ones.

Maybe I expected more, after eleven years waiting for another book. Many information is good, but already more or less known, from the author`s web page, or other sources. As I said, after all this talk about tubes / OPTs modelling I expected working PC models. I expected better A/AB class explanations, more about various coupling (cathode feedback, etc.), probably through modern PC modelling, not just old Thomson graphics, ugly drawn in small pictures.

To be fair, this is a good book, full of many information you can`t easily find elsewhere, just (obviously) not the first one you grab when you need something tube-based, but, IMO-a speciality book for some special themes...and readers.

Another Dutch book, „Fundamental Amplifier Techniques with Electron Tubes" by author

Rudolf Moers is a very ambitious enciclopedia about tubes (800+ pages!), through author`s research, „theoretical explanation of how the practice works“.

In short, the author covered principles of electron tubes, from diode to pentode and their coupling „to the outside world“ through RC parts, transformers, etc. The book covers frequency dependent behaviour, distortion, negative feedback, and the practical side of building amplifiers. Every page is a full of formulas, pictures, and tables, many of them drawn by hand. There are no SPICE simulations, but also there are no some other DIY things like CCS, plate and grid chokes, etc. But, various tubes and circuits are covered, measured and (mathematicaly) explained , from EF86 to 300B, from SE to PP. The author establishes various test circuits with „universal“ OPTs and PS, then shares with us his findings. As far as I can tell, „tube theory“ is well-covered, and the experiments are nicely presented.

If a potential reader can find the time and patience, then this can be a very long read. And very interesting, if you are a math/electronics Geek. The less patient reader can probably skip about 70% of its content and read the conclusions, together with some more interesting diagrams. Are there some inovative projects, one that we can have a desire to build after reading this book? IMO - hardly.

Huh...obviously, it is not easy to write a „tube book“, especially one that can be interesting to the wider audience, without losing its correct technical contest.

I can hardly wait for „Valve Amplifiers 4“, by M. Jones...probably in November 2011., stay tuned...

File Attachments

- 1) [Mennovanderveen.jpg](#), downloaded 9588 times
 - 2) [Moers.jpg](#), downloaded 9903 times
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Subject: Re: New "Tube" Books by "Elektor"

Posted by [Wayne Parham](#) on Wed, 27 Apr 2011 12:55:35 GMT

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Oh, wow, how cool! Thanks for the heads-up!

Subject: Re: New "Tube" Books by "Elektor"

Posted by [gofar99](#) on Thu, 28 Apr 2011 16:15:33 GMT

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Hi, This book is on my birthday request list. If I recall correctly it is still only available from a single source and is about \$125. I would expect it to be worthwhile. I know I can always learn something new from others.

Subject: Re: New "Tube" Books by "Elektor"
Posted by [audioaudio90](#) on Tue, 14 Jun 2011 15:00:19 GMT
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I wish I had noticed this post earlier; I could've gotten these books for a Mother's Day gift! That's ok, I can still buy them myself. Thanks for the info!

Subject: Re: New "Tube" Books by "Elektor"
Posted by [gofar99](#) on Tue, 14 Jun 2011 15:34:21 GMT
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Hi, I believe one is waiting for me for Fathers day. I hope so as I like to see / learn new things. Valve audio design is still part science and part art. I have learned over several years that design aids like PCs (which I certainly admit to using) are more like good guesses in extracting the best performance from tube gear. The science comes in now that we get far better components than in the past, the art in the fact that no two tubes ever act exactly the same. Worse tubes from one manufacturer making tubes will not be the same as from another manufacturer. Still lots of fun and rewarding.

Subject: Re: New "Tube" Books by "Elektor"
Posted by [gofar99](#) on Sat, 02 Jul 2011 02:51:45 GMT
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Hi All, I did get a copy of this book for father's day. I've managed to get to page 144. If you really want to get to the bottom of how tubes work this is the text to do it. That said, if you are not comfortable with extensive higher math (extensive use of calculus) then perhaps you should pass on this one. Any book that discusses Planks constant within the first 10 pages is really serious stuff. I'll let you know what else I discover in the next few weeks. My biggest beef is that the author uses different terms for some generally accepted things and I have to constantly go back to the definitions and see what they mean.

Subject: Re: New "Tube" Books by "Elektor"
Posted by [Wayne Parham](#) on Sat, 02 Jul 2011 03:53:03 GMT
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I should probably pick up that book too. It would be interesting to me.

I wonder why the author chose to relabel standard terms? Do you think he was an industry outsider at one time, maybe thinking outside the box?

Subject: Re: New "Tube" Books by "Elektor"
Posted by [FL152](#) on Sat, 02 Jul 2011 08:19:22 GMT

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You can see from Bibliography where this knowledge / definitions are coming from - mostly the old NL/Philips - Euro authors. Plus translation to English, some terms I never heard before.

You know old-fashioned College books, lots of atomic theory and complex Math, but God forbid that you can find any useful/practical circuits to build.

Moers` s book is a „journey" through authors experiments and measurements of various circuits that he tried to explain mathematically / theoretically. I think that he did a solid job there, good combination of DIY and Scientific approach.

But, I also found his writing / teaching style somewhat old fashioned, confusing and boring. But, that`s me - probably there`re some people out there who found this book very interesting and enjoyable...

Subject: Re: New "Tube" Books by "Elektor"
Posted by [Wayne Parham](#) on Sat, 02 Jul 2011 15:25:03 GMT

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Oh, I see. Thanks for the information and insight!

Subject: Re: New "Tube" Books by "Elektor"
Posted by [gofar99](#) on Tue, 26 Jul 2011 03:25:45 GMT

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Hi Everyone, I'm up to page 557 (of 818). It reminds me of a 4th semester calc class (differential equations) that was held at 8am on Tuesday, Thursday and Saturday. I'm sure you can figure out why I only understood 2/3 of the work.

There are some tidbits stuck in the book and some rather nice explanations. I found the portion on U/L vs triode vs pentode rather interesting. But for the non-designers among you I would pass on this book. The tendency to use non-standard terminology, change definitions of terms and symbols, and gloss over stuff he doesn't want to talk about is a bit over the top. It comes off a bit pompous to me. It also seems centered on stuff done only in Europe. I seem to recall there were a number of others that did some pretty neat thing elsewhere. Jumping off the soapbox now....

Subject: Re: New "Tube" Books by "Elektor"
Posted by [Shane](#) on Fri, 29 Jul 2011 04:56:05 GMT
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Not Calculus

DiffEQ was enough for me. I don't want to see it anymore.

Subject: Re: New "Tube" Books by "Elektor"
Posted by [gofar99](#) on Mon, 22 Aug 2011 16:53:40 GMT
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Hi, I finished the book. My thoughts are that the usual diyer should pass on this one and read Morgan instead. There is good information throughout the text, but unless you want to know the math behind minutia skip it. My sense is that the practicality of the book for most diyers is minimal. Chapters on noise and distortion and how to deal with them are IMHO inadequate. I don't want to design and build tubes, I want to use them.
