Subject: Capacitors Do Matter
Posted by AudioFred on Mon, 24 Jan 2011 13:51:54 GMT
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I believe that capacitors do make a significant audible difference in tweeter high pass filters. This is based on my experience with many speakers ranging from a pair of 3Pi's to a pair of Magnepan 1.6QR's.

In the case of the Maggies I participated in an experiment where we placed two pairs of 1.6's side by side and did an AB comparison for the experienced ears of Houston Audio Society members. One pair had the stock Solen caps; the other had a "cascade" of Northcreek Music Harmony, Zen and Cresendo caps in the tweeter crossover. The unanimous conclusion of the group was that the sound of the modded pair was so much better they didn't even sound like the same speakers. Of course this wasn't a double blind test, so some will immediately dismiss the perceived outcome.

Now along comes this paper presented at the 2008 convention of the Audio Engineering Society whose measurements confirm a significantly higher level of non-linear distortion in speaker crosssover capacitors. If you're not into mathematics go straight to section 7 - Conclusions.

http://www.mennovanderveen.nl/nl/download/download_4.pdf