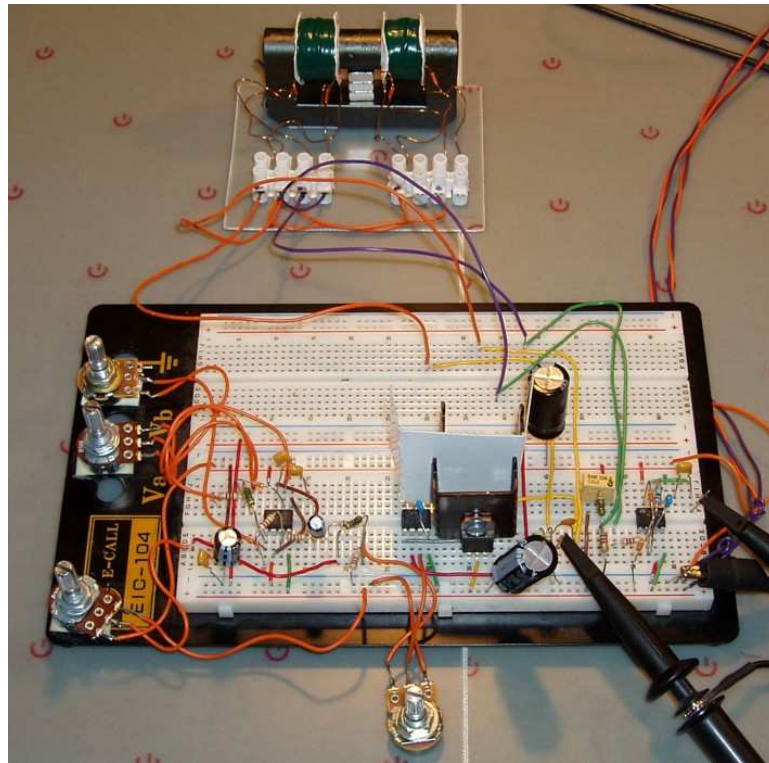
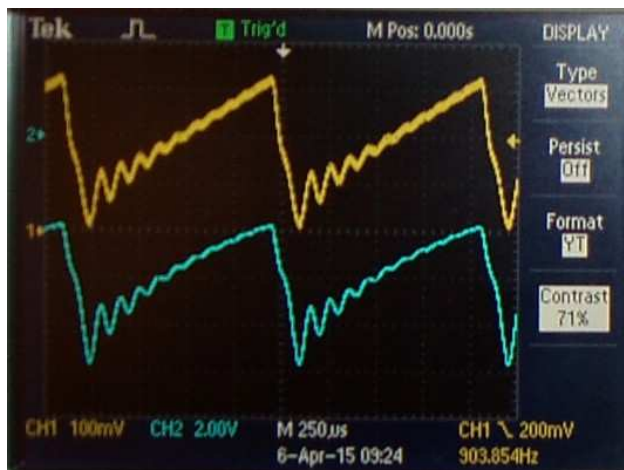


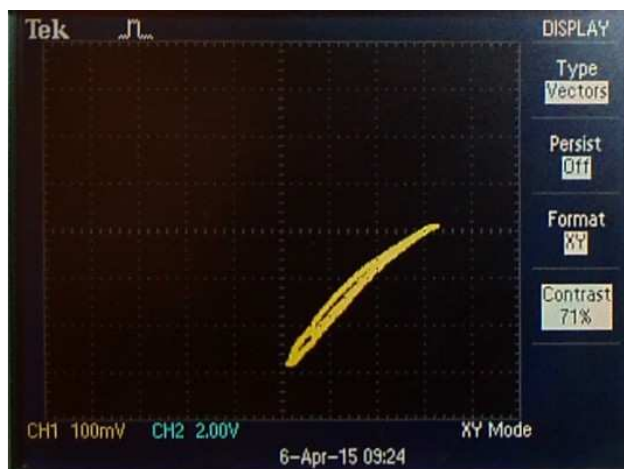


Core tracer and MEG core



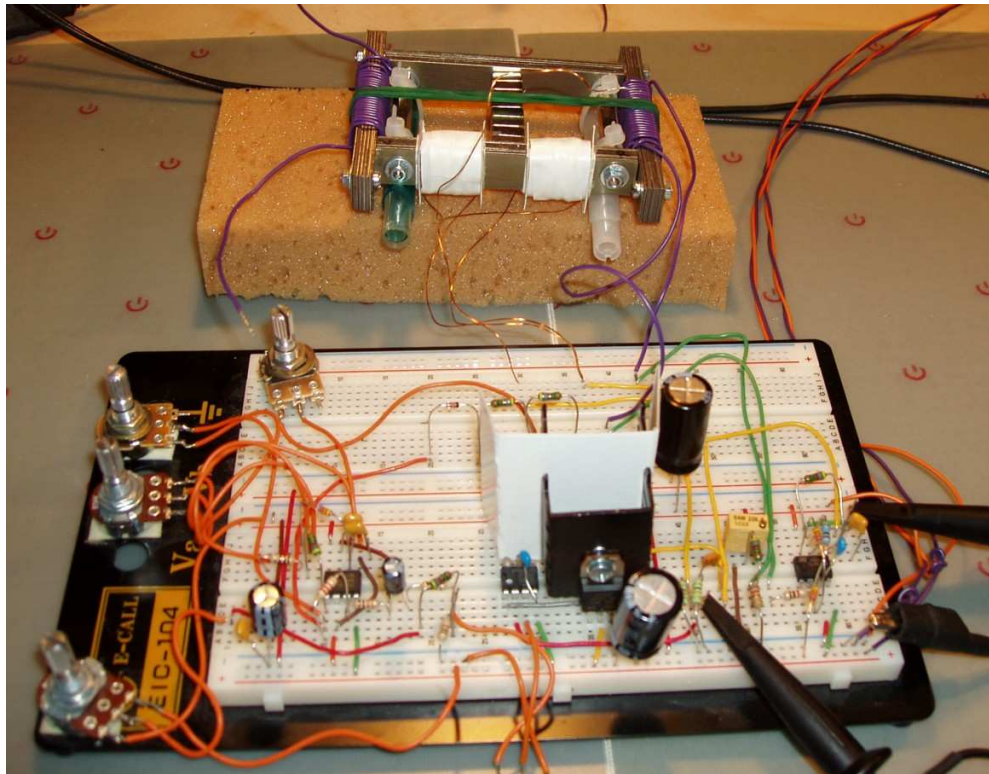
top - current
bottom - core flux

* likely that oscillations because of "negative" resistance

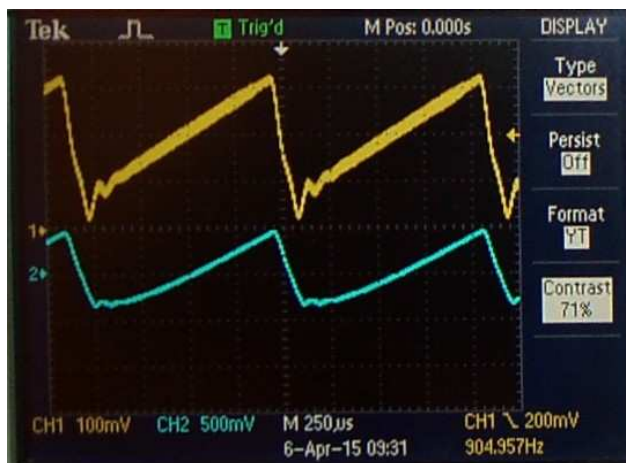


Here it is, clockwise BH loop!

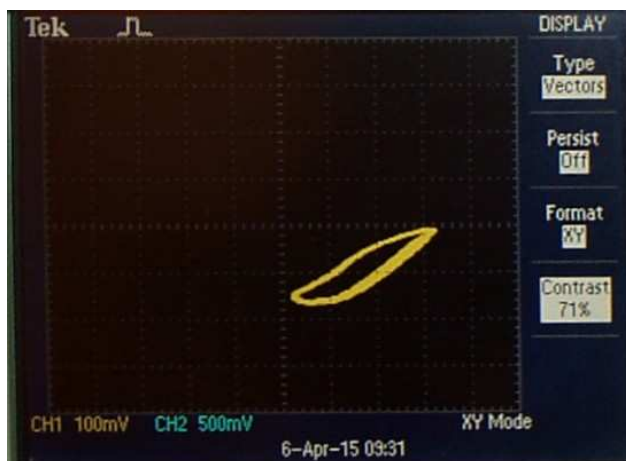
It is interesting that polarity not very important (along or counter to magnet field) but magnetization / demagnetization speed difference!



Iron laminate core with PM (left from flux switching MEG experiments)

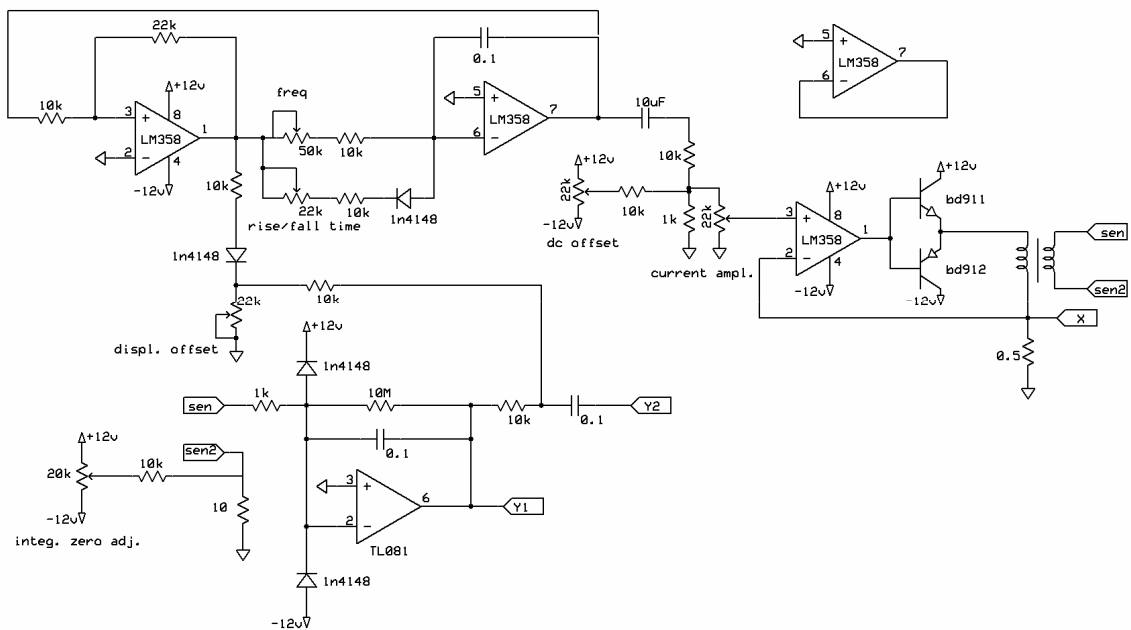


top - current
bottom - core flux

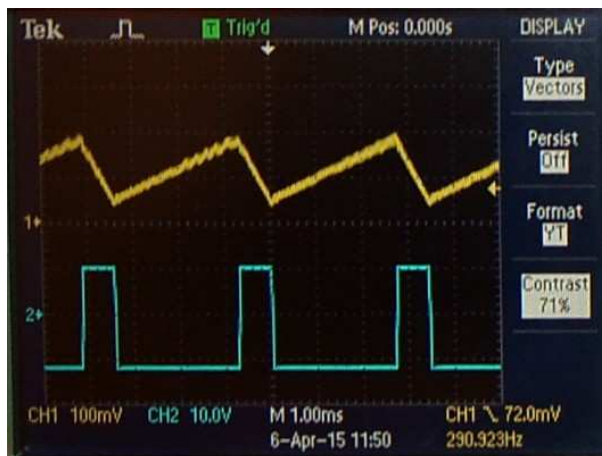


Looks like demagnetization on top and magnetization on the bottom. It is not symmetrical, but otherwise conventional hysteresis loop

(Is it too fast for laminate core?)



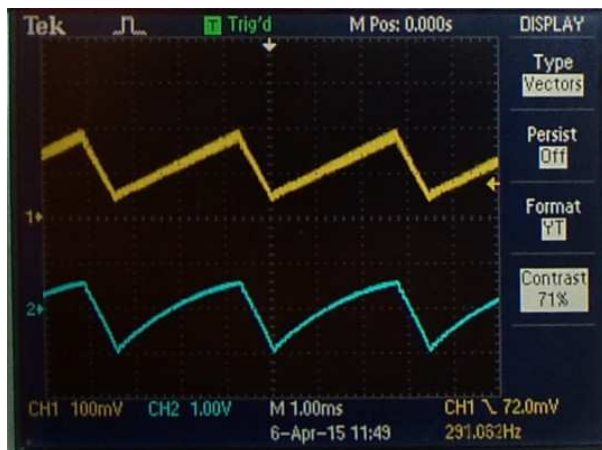
I use improved BH curve tracer to verify the position of magnetization and demagnetization traces.



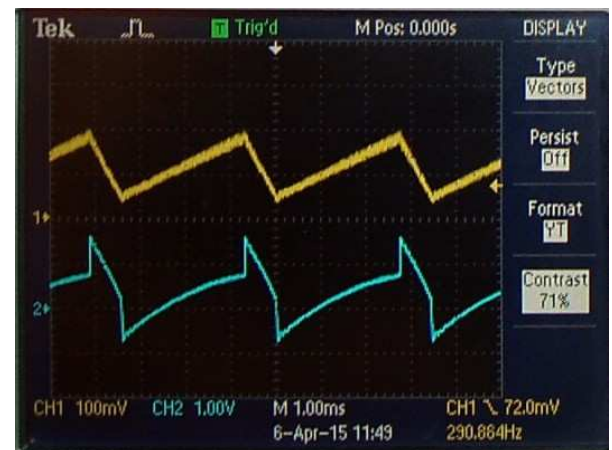
top - current

bottom - output of the first OP Amp in the saw generator

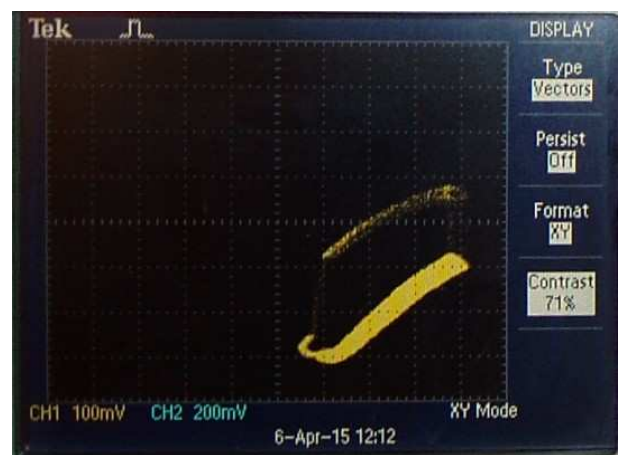
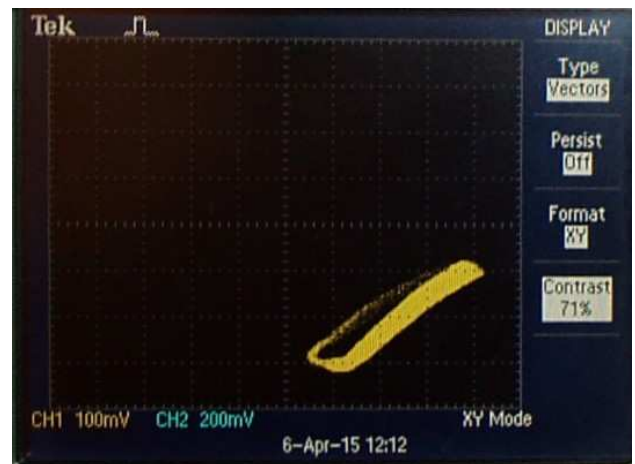
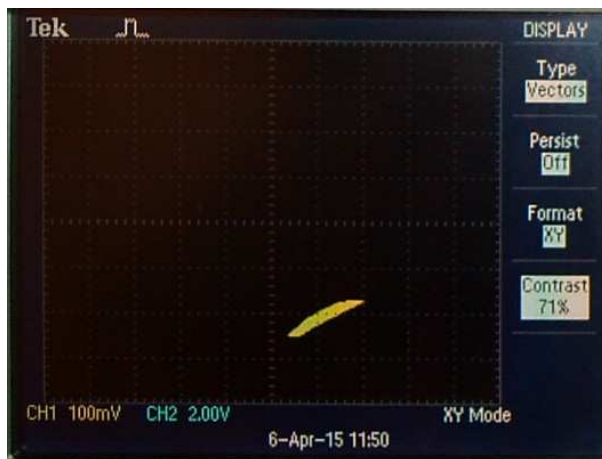
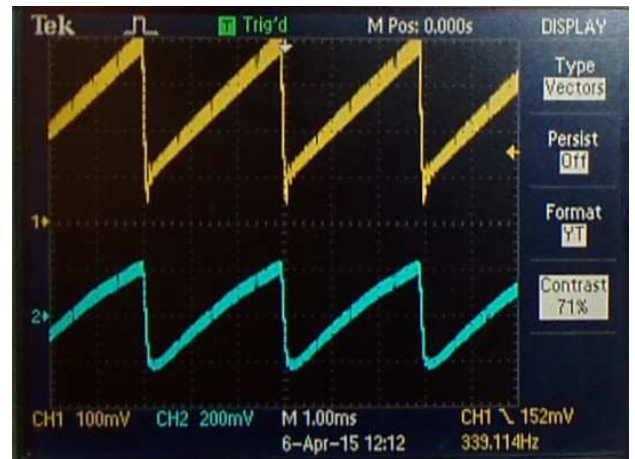
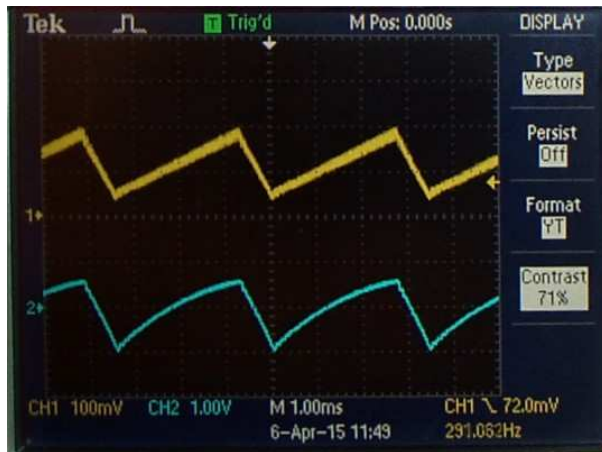
I am adding it to the integrator's output to easily and reliably distinguish demagnetization and magnetization traces



offset is zero



offset added to the integrator's output during the demagnetization



ferrite core with PM, demagnetization on the bottom (now shifted up)

iron laminate core with PM
demagnetization on top (now shifted up)

A quote from Cyril Smith "A New look at the MEG" page 3

Of interest to OU researchers is the concept of negative resistance, since this represents a source of energy rather than a sink. The next figure shows the Φ v I plot for an inductor shunted by a negative resistor.

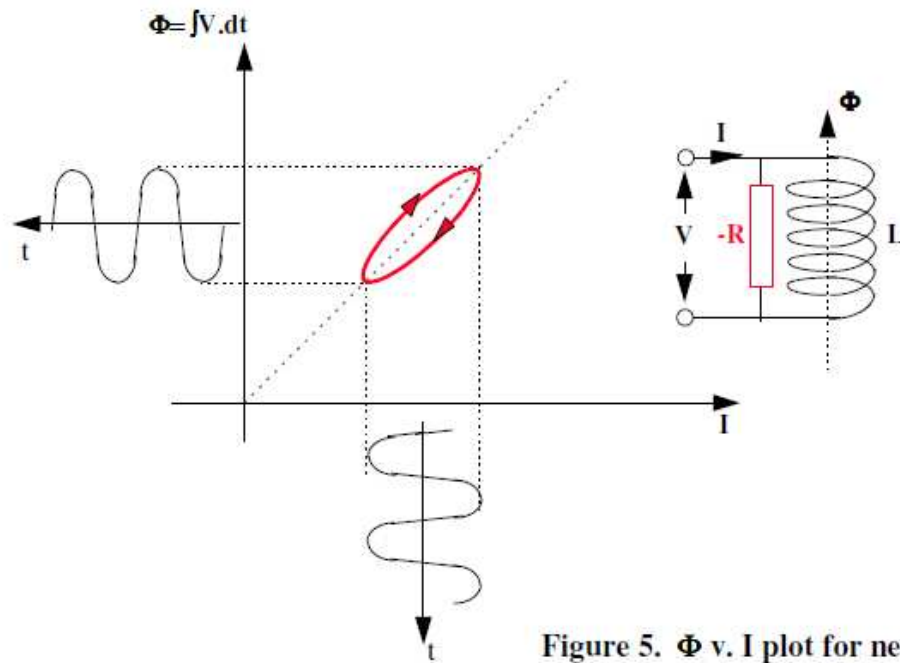


Figure 5. Φ v. I plot for negative resistor