

1 Oscilloscope Partial Discharges measurements

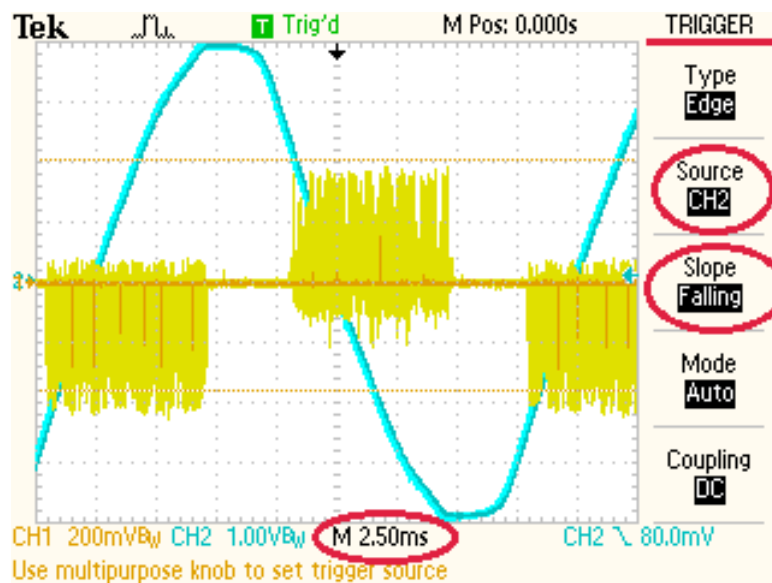
You can not to see PD by eye and can not to hear by ear. These can be measured using a special measuring instrument or an oscilloscope.

If there is an oscilloscope with a bandwidth of 60-200 MHz, then I can explain what you need to set the parameters on it for the correct measurement.

Channel 1 is the source with Partial Discharges.

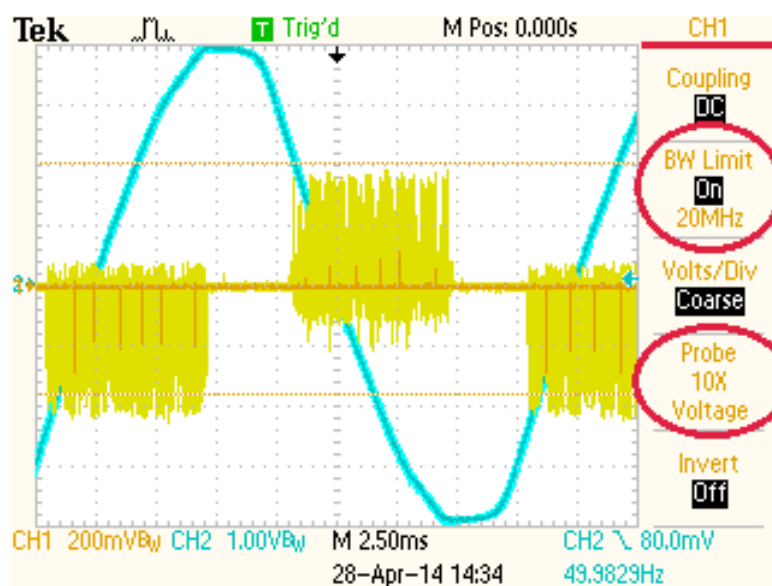
Channel 2 is the synchronization Channel.

1.1 Trigger by a sine wave of power supply at Channel 2 (50Hz or 60Hz)

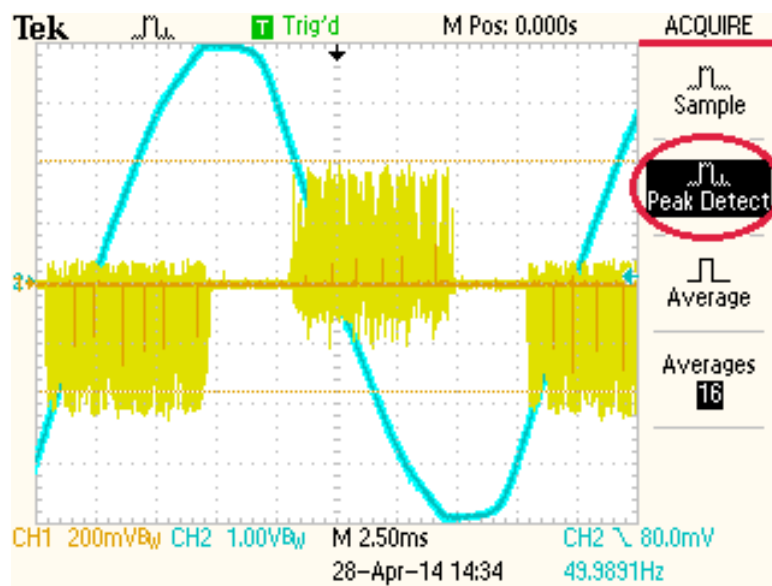


1.2 Bandwidth limit to 20 Mhz

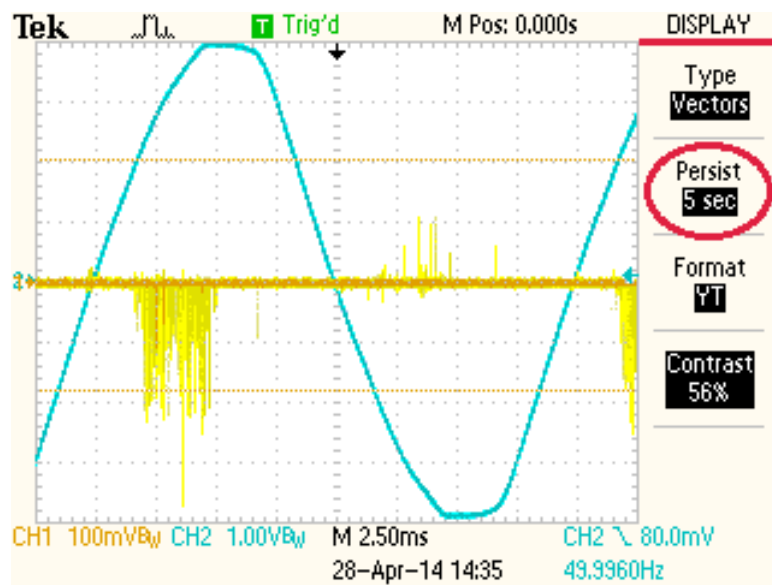
1x for direct connection source by coaxial cable (it is recommended) or
10x for oscilloscope probe connection



1.3 Peak detector for the input channel



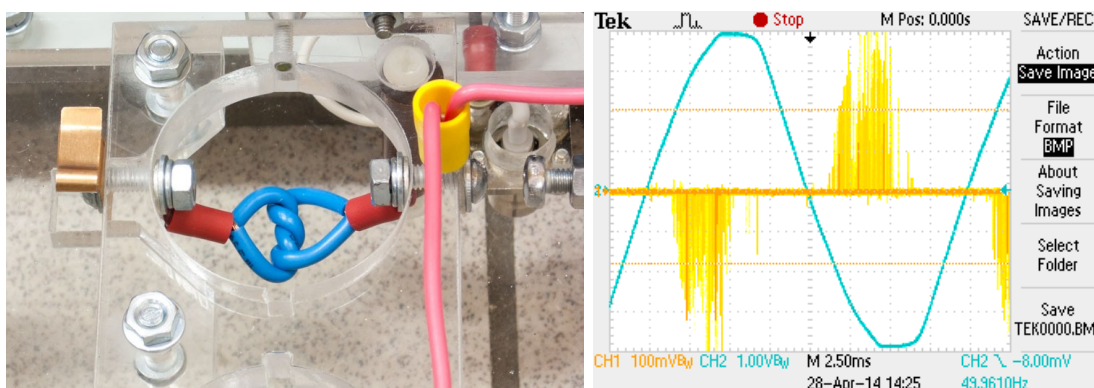
1.4 The accumulation mode for data



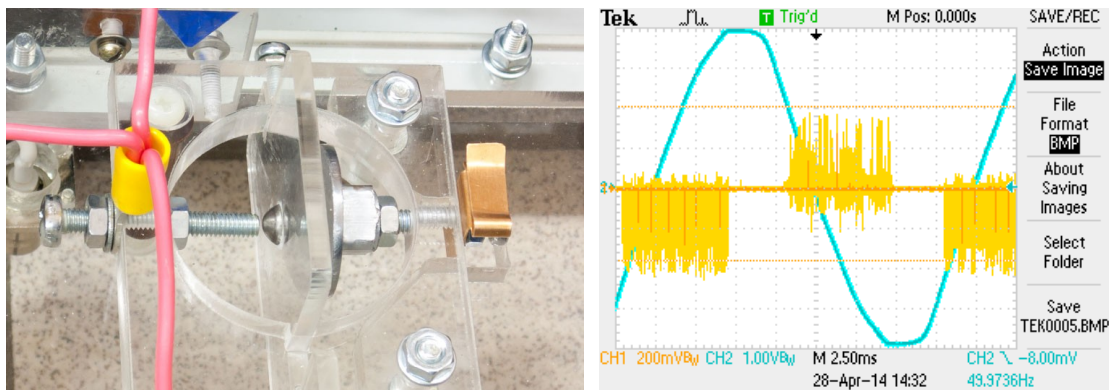
2 PD Simulator for testing measurements



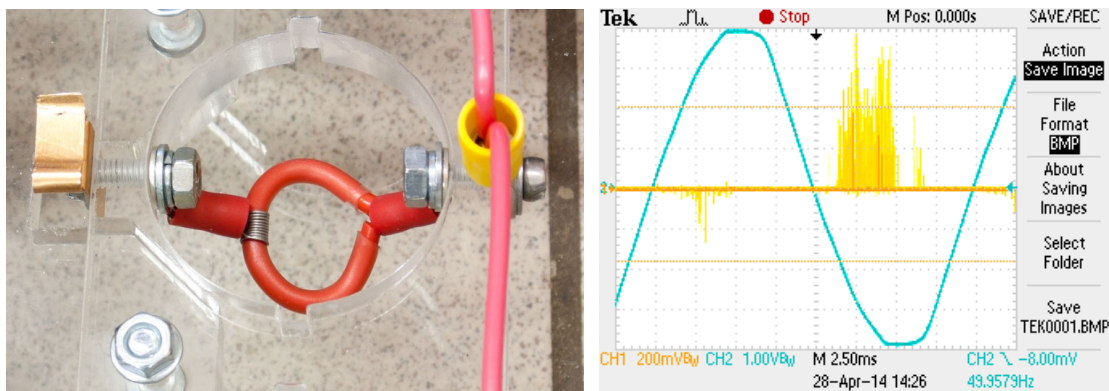
2.1 Partial discharge inside the insulation



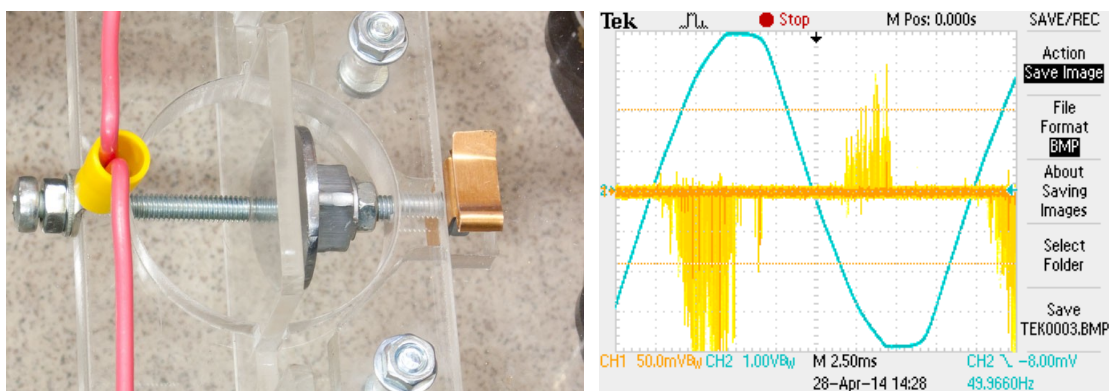
2.2 Partial discharge of “floating potential” type



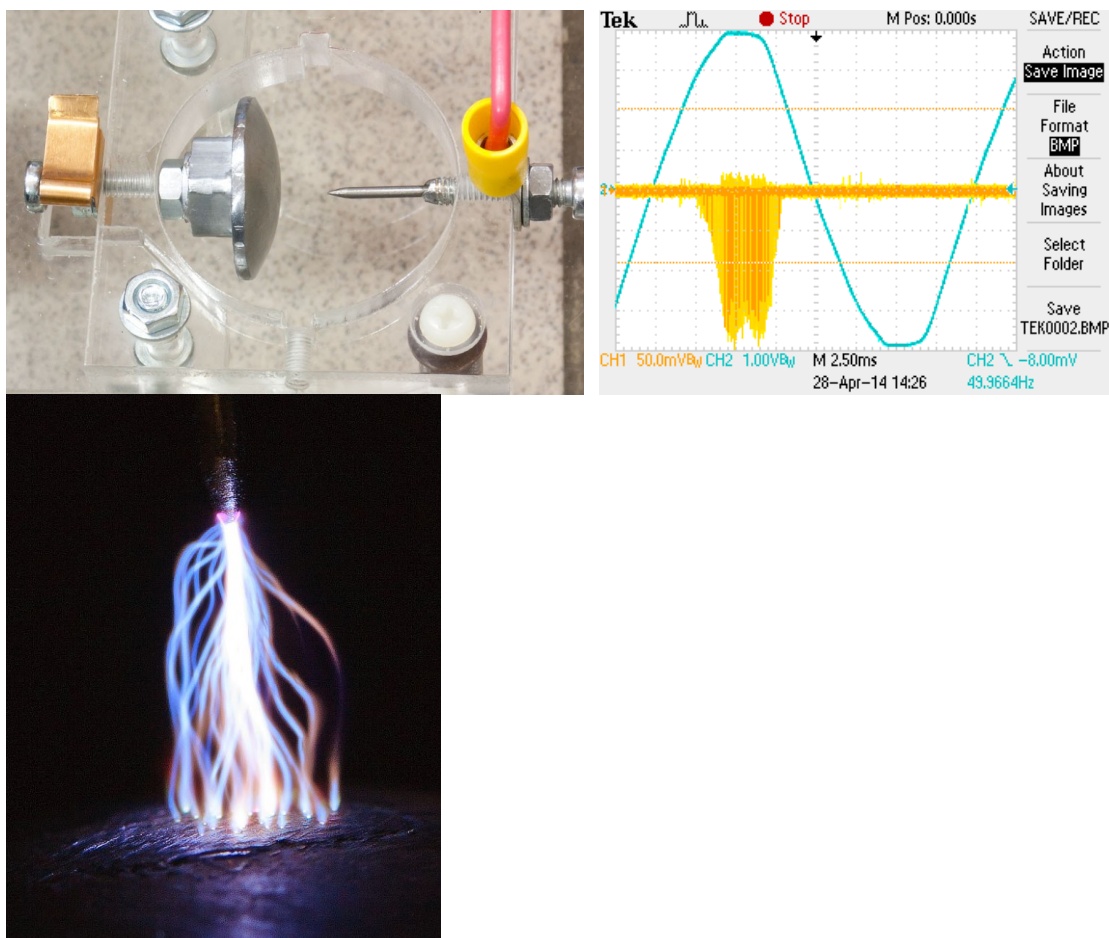
2.3 Surface discharge from earth potential



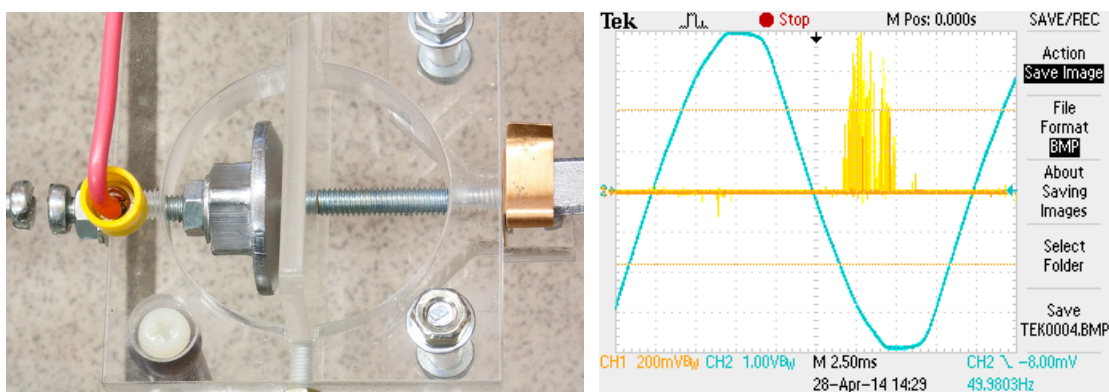
2.4 Surface discharge from high-voltage Electrode



2.5 Corona discharge from high-voltage electrode



2.6 Surface discharge from “ground electrode”



2/9/2015

AndreySchekalev@dimrus.com