

Test of HV porcelain insulator columns

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6 porcelain insulator columns have been given to the LIS by C Hill, which will hopefully be used to support the table for the HV equipment of the source ready for the 100J laser.

The HV rating of these pieces have not been ascertained from available records, and hence we required a test to at least the 110 kV required for the LIS.

The six columns were tested in January 2001 using a Glassman 300kV power supply.

	HT at which / kV	
	First Audible corona	20 μ A corona
1	140	180
2	140	190
3	135	185
4	140	180
5	135	180

1. Adding spinners to the top of the column drastically reduced the amount of corona.
2. Some columns were tested up to 200kV and there was no sign of any flashovers, but the corona current was significant in these cases ($\sim 100\mu\text{A}$).
3. No corona could be measured or heard in any of the configurations tried up to 130kV, and hence the columns will be safe to use up to 110kV.

