

Summary “Materials and Gas”

Mar Capean’s talk demonstrated important progress in the **systematic understanding** of

- materials, gases, assembly;
- test setups, analysis methods;

The lesson: **preselection** of materials, gases using **available data bases** and systematic acceptance tests allows to avoid the known dangerous materials (examples: MSGC and Outer Tracker from HERA-B, *Dreis and Dehmelt*)

Analysis methods have been highly developed for the study of aged electrodes:

- Gas chromatography (*Kurvinen, Capeans*);
- Nuclear reaction analysis (*Lebedev*);
- electron microscopy (SEM, XEM, EDS,)

Lessons for some gases:

- DME is very sensitive to pollutants (*Henderson, Blinov*)
- CF₄ - mixtures: **avoid hydrocarbons** and **control water content** (*Dehmelt, Schreiner*)

Parameters of aging tests have to be carefully chosen for comparison with the real experiment:

intensity, gas flow, HV/gain, geometry, no simple, general answer