



From the results of tests with an apparatus described in attached sheets headed

Installation of a Test Set to prove Non-Ignition between Cells

I declare the following:

Certificate 1 (for Tests 1 to 4)

Tests described on attached sheets headed *Tests with Hydrogen Gas.*

The bfs water-filling system, comprising **bfs plug III** plus hose connections has performed according to specification in preventing any ignition of hydrogen gas developing into a chain reaction or arc-through in case of an ignition source inside the battery system.

First Group:

1 (one) each of Test 1 through Test 4.

Results: hydrogen ignition contained in central cell;
No chain reaction.

Second Group:


2(two) of each Test 1 through Test 4.

Results: Hydrogen ignition contained in central cell;
No chain reaction.

Third Group:

1(one) of each Test 3 and Test 4.

Results: Hydrogen ignition contained in central cell;
No chain reaction.


(prof.) *E.A. Mallia*
29th March 2003

Department of Physics
University of Malta,
Msida MSD06, MALTA.



From the results of tests with an apparatus described in attached sheets headed

Installation of a Test Set to prove Non-Ignition between Cells

I declare the following:

Certificate 2 (for Tests 5 and 6)

Tests described on attached sheets headed ***Tests with Hydrogen Gas.***

The bfs water-filling system, comprising **bfs plug III with central degassing** plus hose connections and fitted with **filters EX for central degassing** has performed according to specification in preventing any ignition of hydrogen gas developing into a chain reaction or arc-through, in case of an ignition source inside the battery system (Test 5) or an external source of ignition (Test 6).

First Group:

1 (one) each of Test 5 and 6.

Results: Hydrogen ignition contained in central cell (Test5) or in space external to the battery system (Test 6).

No chain reaction.

Second Group:

2 (two) of each Test 5 and Test 6.

Results: Hydrogen ignition contained in central cell (Test 5) or external to the battery system (Test 6).

No chain reaction.

A handwritten signature in blue ink, appearing to read 'E.A. Mallia'.

(prof.) **E.A. Mallia**
29th March 2003

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