

☒ BAM · Federal Institute for Materials Research and Testing · D-12200 Berlin

C.En.Ltd. - Clean Energy
Prof. Dan Eliezer
Chief Scientist
Mr. Moshe Stern
President
Sonnhaldenstrasse 3
Postfach
CH-8032 Zürich
Schweiz

Your reference

Your message of
2008-08-14
Our reference
Vh2516
Our Phone (direct)
+49 30 8104-3436
Our Fax (direct)
+49 30 8104-1217
Our E-Mail
Kai.Holtappels@bam.de

Date
2008-09-19

Storage of Hydrogen in Capillary Arrays - Progress

Dear Sirs,

Herewith I would like to inform you about the recent, promising results we achieved in our project "Storage of hydrogen in capillary arrays".

In the recent past we got quartz glass capillaries from a German company which showed a high pressure resistance and did not break at pressures up to 500 atm.

First storage tests were also carried out mainly in single capillaries. We determined the possibility of hydrogen storage of about 33% H_2 at a comparative low pressure of *only* 400 atm. In these tests the high potential of such a storage system can be seen.

On the basis of these excellent results we would like to go ahead in this project. Main steps are increasing the hydrogen storage pressure while decreasing the thickness of the capillary walls to the minimum value. This will lead to a loss of weight of a future storage container and to higher gravimetric storage capacities.

In general it turned out once again that this concept of hydrogen storage is of a trendsetting nature which will be very useful in broad fields of energy related applications. At this time we are also preparing one or two prototypes for demonstrating the potential of this storage system.

Best regards,



Dr. K. Holtappels
Working Group "Safety Related Properties of Gases"
Division II.1 "Gases, Gas Plants"

Headquarters Lichterfelde:
Unter den Eichen 87
D-12205 Berlin

Branch Fabeckstrasse:
Unter den Eichen 44-46
D-12203 Berlin

Telephone: ++49-30-8104-0
Telefax: ++49-30-8112029

Branch Adlershof:
Rudower Chaussee 5
D-12489 Berlin

Telephone: ++49-30-6392-0
Telefax: ++49-30-6392-5787

Bank account:
Bundeskasse Berlin West/
Landeszentralbank Berlin:
Account No. 10 001 018
Sort Code (BLZ) 100 000 00

Postbank Berlin:
Account No. 200 102
Sort Code (BLZ) 100 100 10

