Open Power Association
Parkhomov-like experiment

an international scientific cooperation with the MFMP and others

Experimental Thread B

Participation in the replication of a Parkhomov-like experiment, with an international community of researchers and in cooperation with the Martin Fleischmann Memorial Project.

Preparation of a set-up that aims to be robust during the trial, operate in safely and with the possibility of cross-checks of the emerging phenomena. To show repeatability to other experimenters, flexibility to be able to maintain observation even when unexpected phenomena occur, the versatility to conduct tests even in conditions different from those provided by Parkhomov, particularly evidence in the context of our Open Patent Application, then with mixtures of powders, deuterium, subjected to continual electrical stresses, oscillation and pulsed discharge.

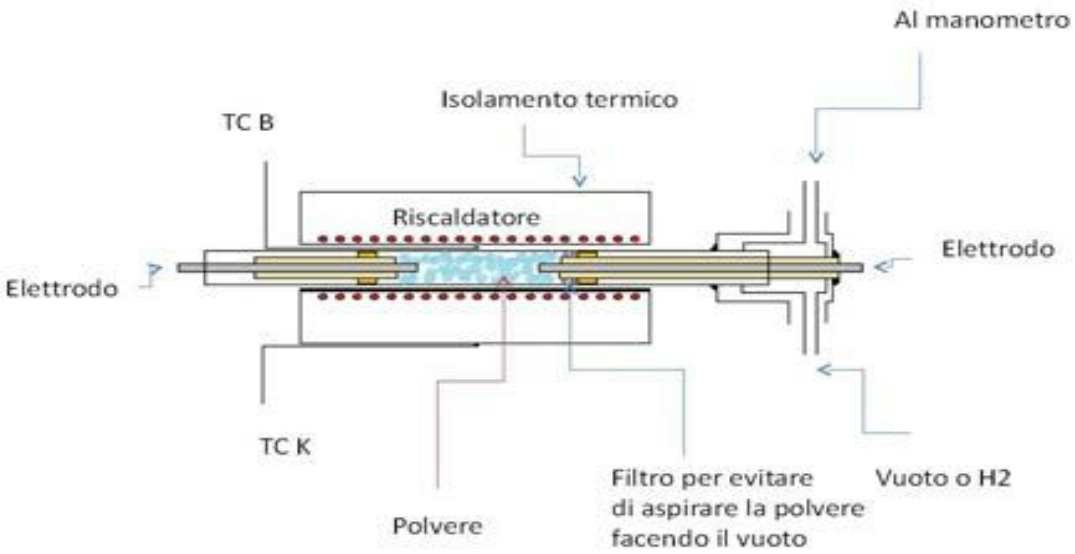
The apparatus

The reactor, of a type which is based on the model of Parkhomov and amended by collaborations in the network, is served from the supply line gas pressure, collecting exhaust streams, vacuum pump, pulse generator, electric heater coaxial Watlow AC401A06A [Error from original Italian, actually VC401A06A] isolated fiber ceramic, digital thermometers, thermocouples type B and K, a PID controller of temperature, energy meter input with insulation transformer and low-pass filter, screen boron-lead, measuring gamma-neutron radiation for primary and secondary radiation Geiger counter for after-screen.

All detectors are interfaced to a computer, for graphical representation and storage.

The scheme of the reactor is designed in accordance with the objectives and also provides a pair of electrodes for electrical stress/stimulation.

The scheme was kindly revised by Dr. Ubaldo Mastromatteo



Open Power Association variation on a Parkhomov-like reactor

The reactor detailed above is under construction in Naples, in the laboratory of our associate Q. Cuccioli.

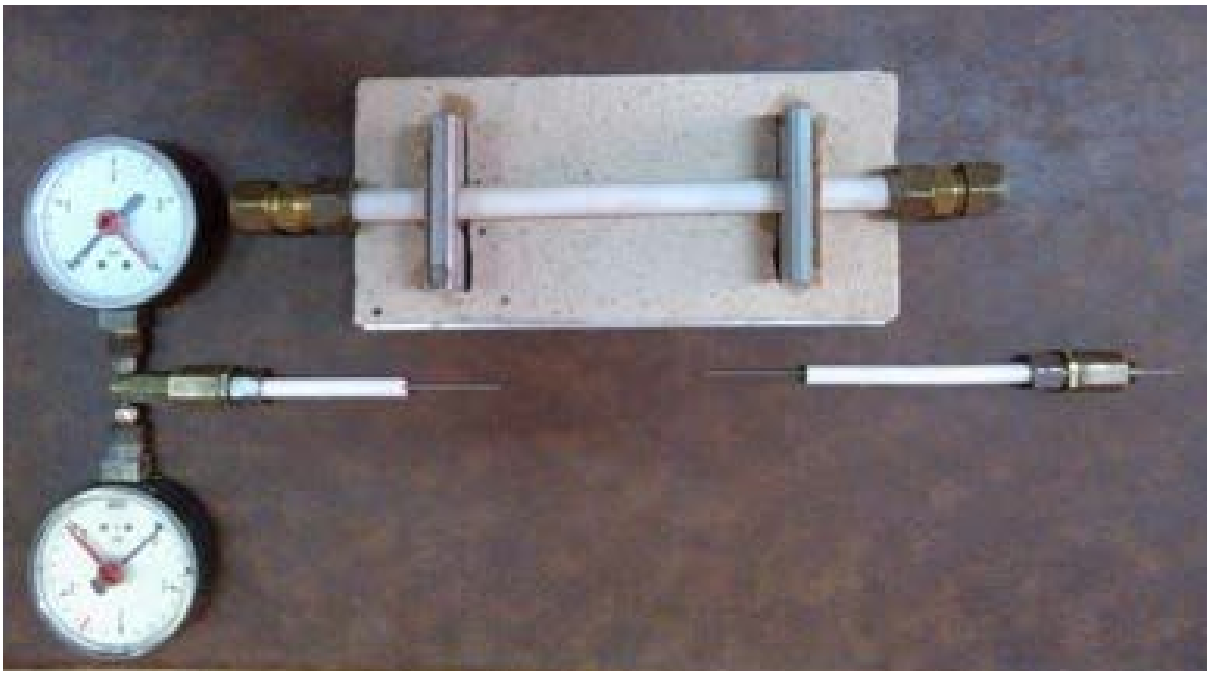
Below, they show some constructive steps, highlighting the solutions adopted, with the caveat that some issues are still being examined, for example. the connections between the different parts of the reactor (are undergoing tests of thermal stability and pneumatic sealing suitability), or how the introduction of isolation taps between the reactor and the gas supply / vacuum pump, with the obligation to minimize dead volumes (for now, two pressure gauges have been provisionally mounted, only for leak testing), or the introduction of a safety valve for maximum pressure, with the pipe boot to the treatment of the exhaust.

NOTE: ***The Open Power Association has been supplied the full, exact same, Parkhomov fuel powders by the MFMP which will form part of this testing.***

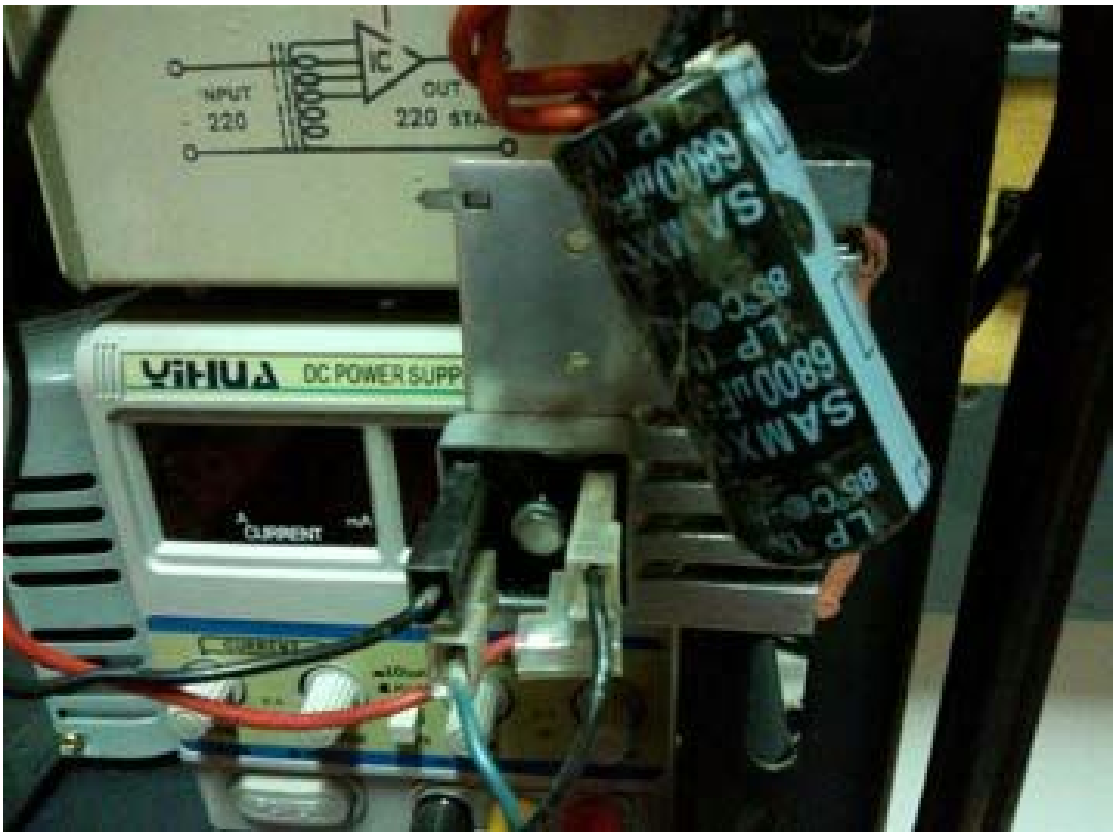
Details of the electrodes

Detail of the connection for the pressure gauges

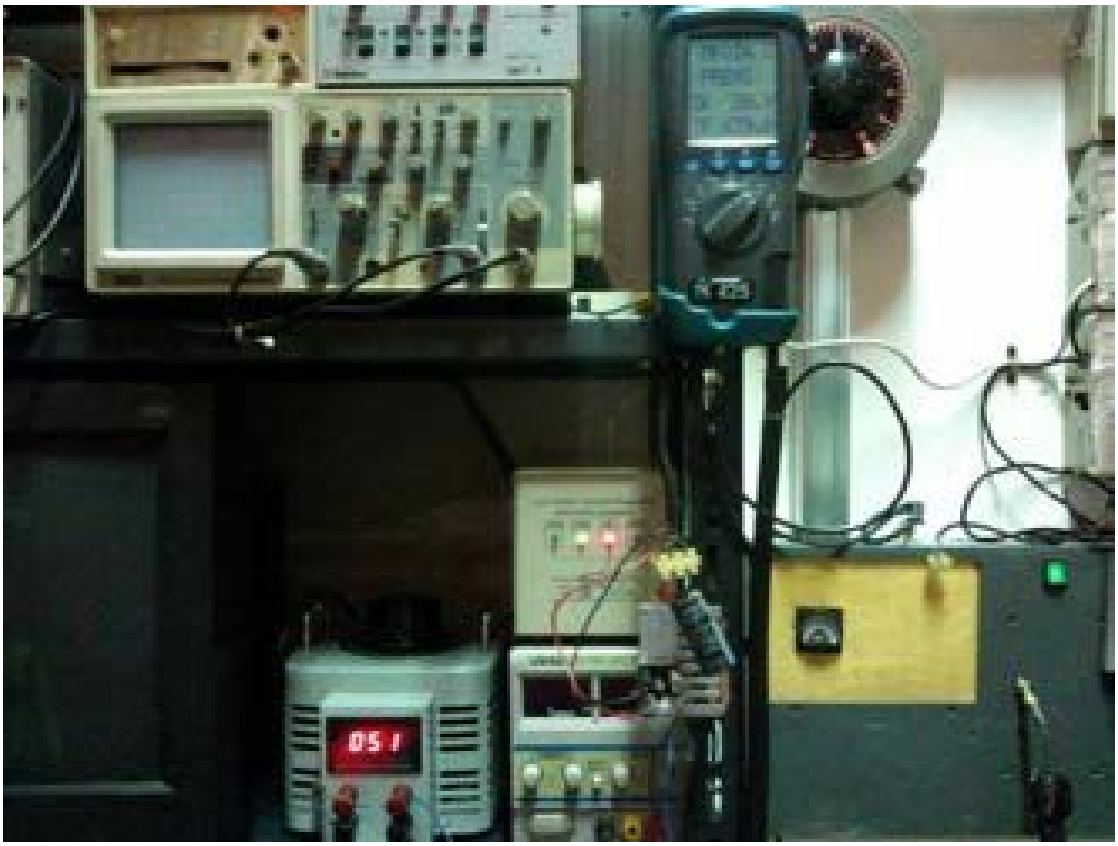
Reaction tube



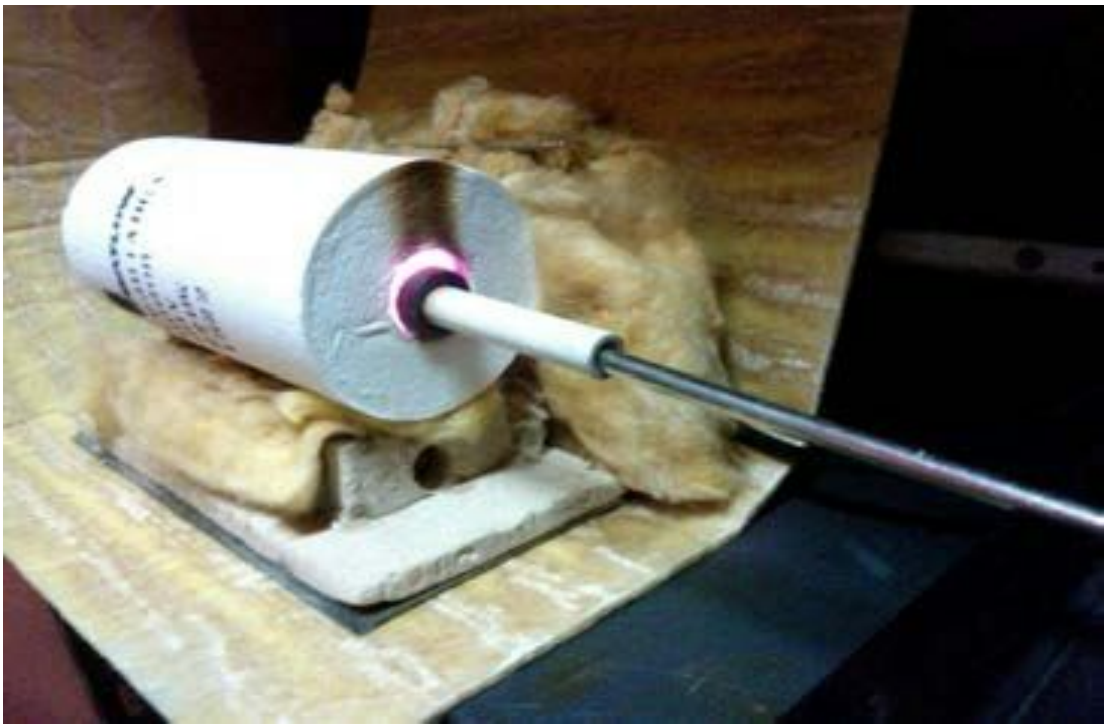
Reactor disassembled



Rectification and smoothing



Control



Watlow heater in operation test

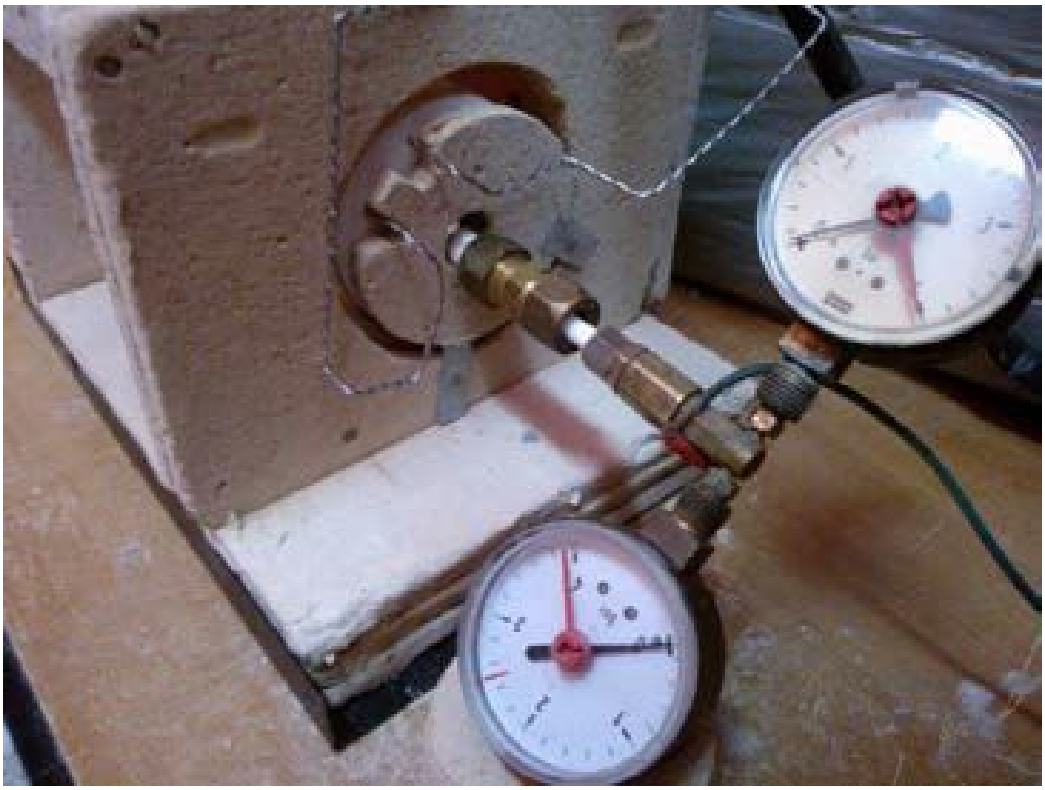
Initial tests a Watlow heater

Inserting the reactor tube spacer locks

Copy of the heater winding

Copies of the Watlow heater, ready for finishing

Insulation housing



Reactor in the temporary short tube, test

Overview of the short tube temporary trial

Experimental Protocol

After calibration, the experiment will use two reactors, a dummy (reference) and another which will be loaded (active).

The temperature will be gradually raised with the aim of detecting deviations between the two reactors. The temperature will be controlled by monitoring the active reactor with the PID controller, which will in turn control the supplied power to maintain a stable temperature.

Subsequently, varied types of fuel will be used and discharge configurations (duration, intensity, waveform shape and repetition rate) in accordance with our Open Patent Application.

The overall system will record the behavior (in relation to the operating parameters) relating to various total power input compared with evaluation of the power produced. The results in the form of COP will be prepared into a report.