# EVOs AND THE HUTCHISON EFFECT

NUCLEAR TRANSMUTATION FROM LOW-VOLTAGE ELECTRICAL DISCHARGE

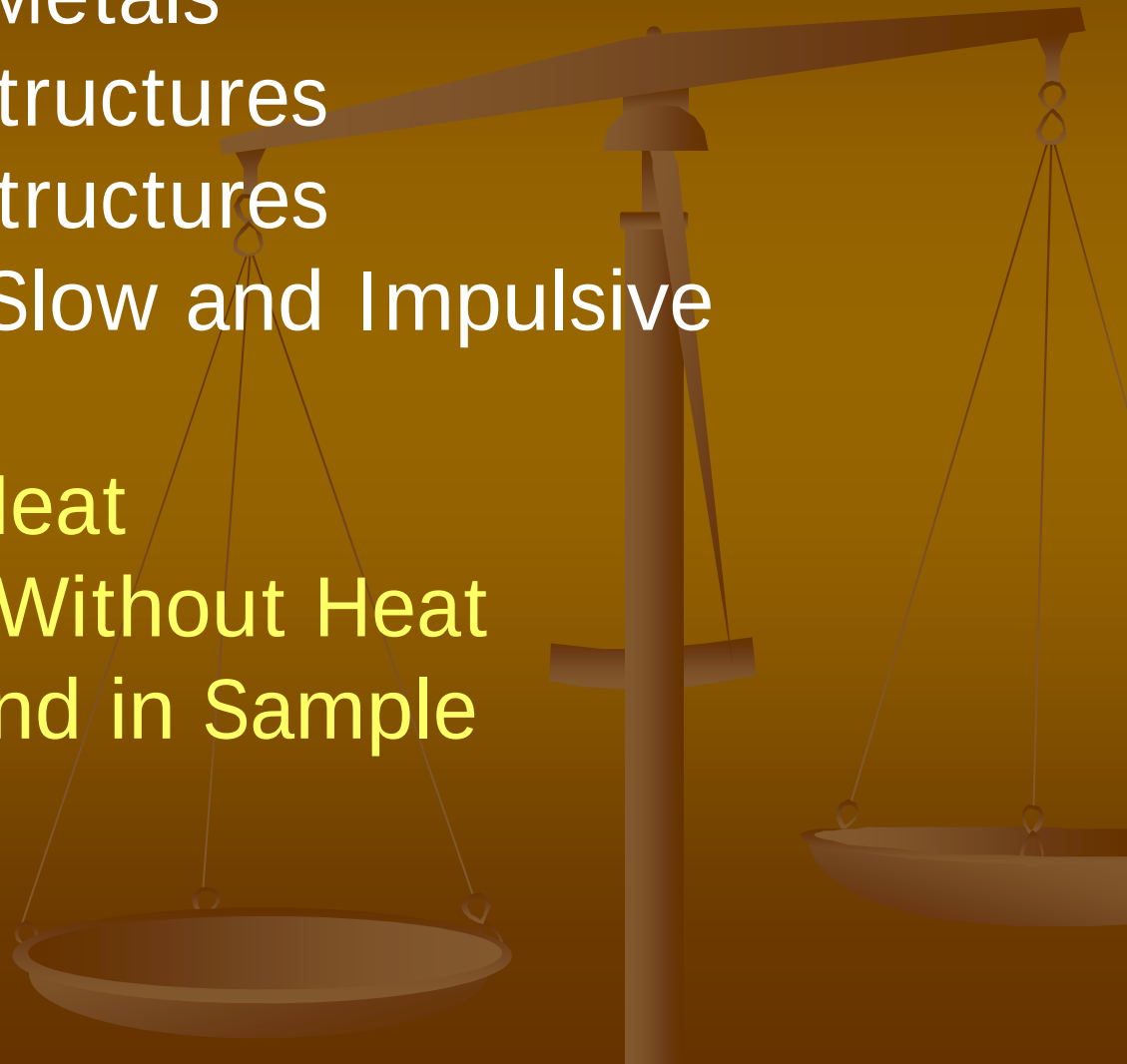
Paper presented at the MIT Cold Fusion Conference
May 21, 2005
By

Ken Shoulders

# Hutchison Effect

Slow Bending Of Metals
Shredded Metal Structures
Fractured Metal Structures
Propulsion--Both Slow and Impulsive

Melting Without Heat
Metal Luminance Without Heat
EVO Strikes Abound in Sample



# PHOTO EXAMPLES OF METAL SUBJECTED TO ELECTRICAL TREATMENT

by

JOHN HUTCHISON

# ELECTRICALLY TREATED METAL BY HUTCHISON

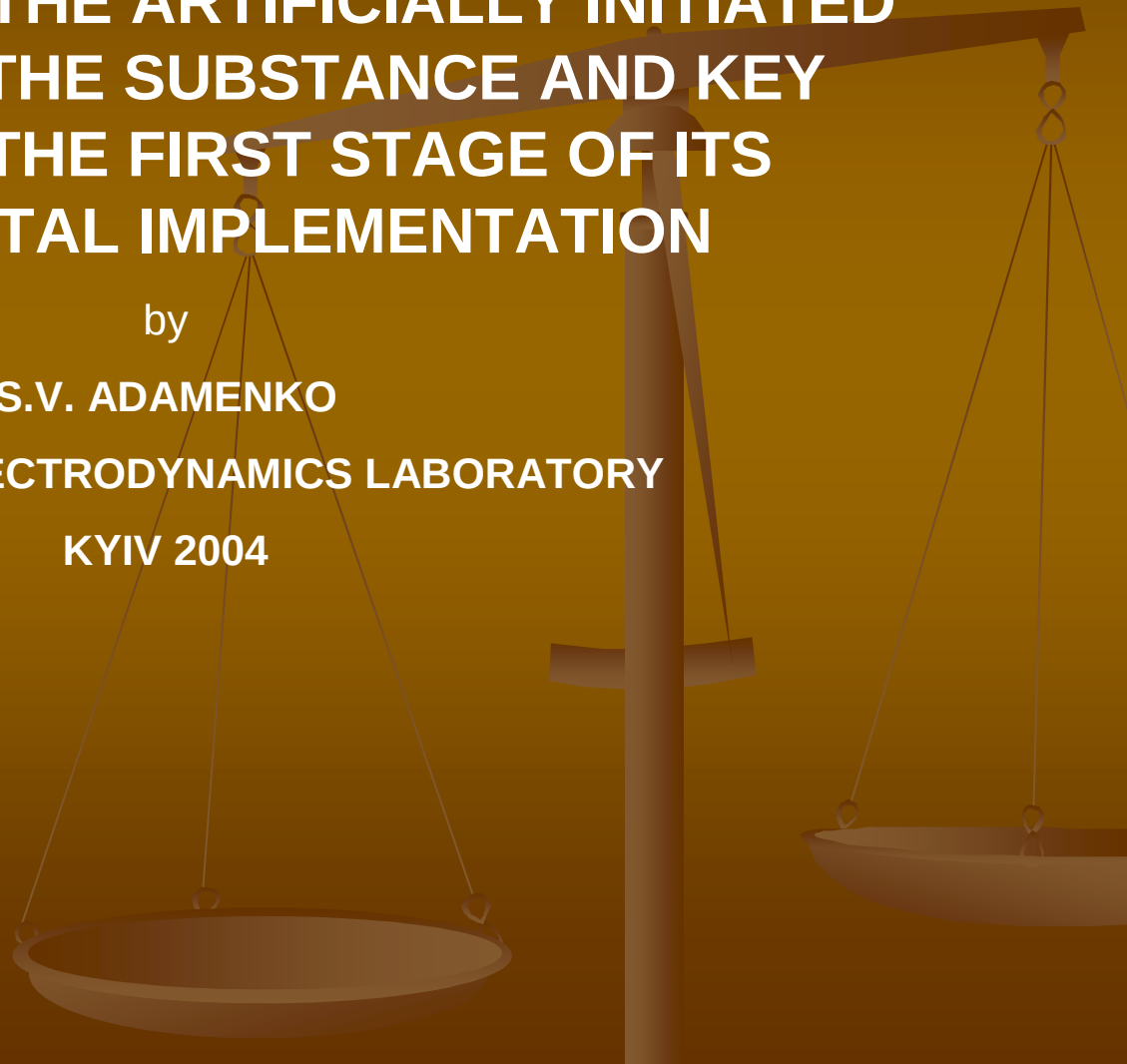
# CONCEPTION OF THE ARTIFICIALLY INITIATED COLLAPSE OF THE SUBSTANCE AND KEY RESULTS OF THE FIRST STAGE OF ITS EXPERIMENTAL IMPLEMENTATION

by

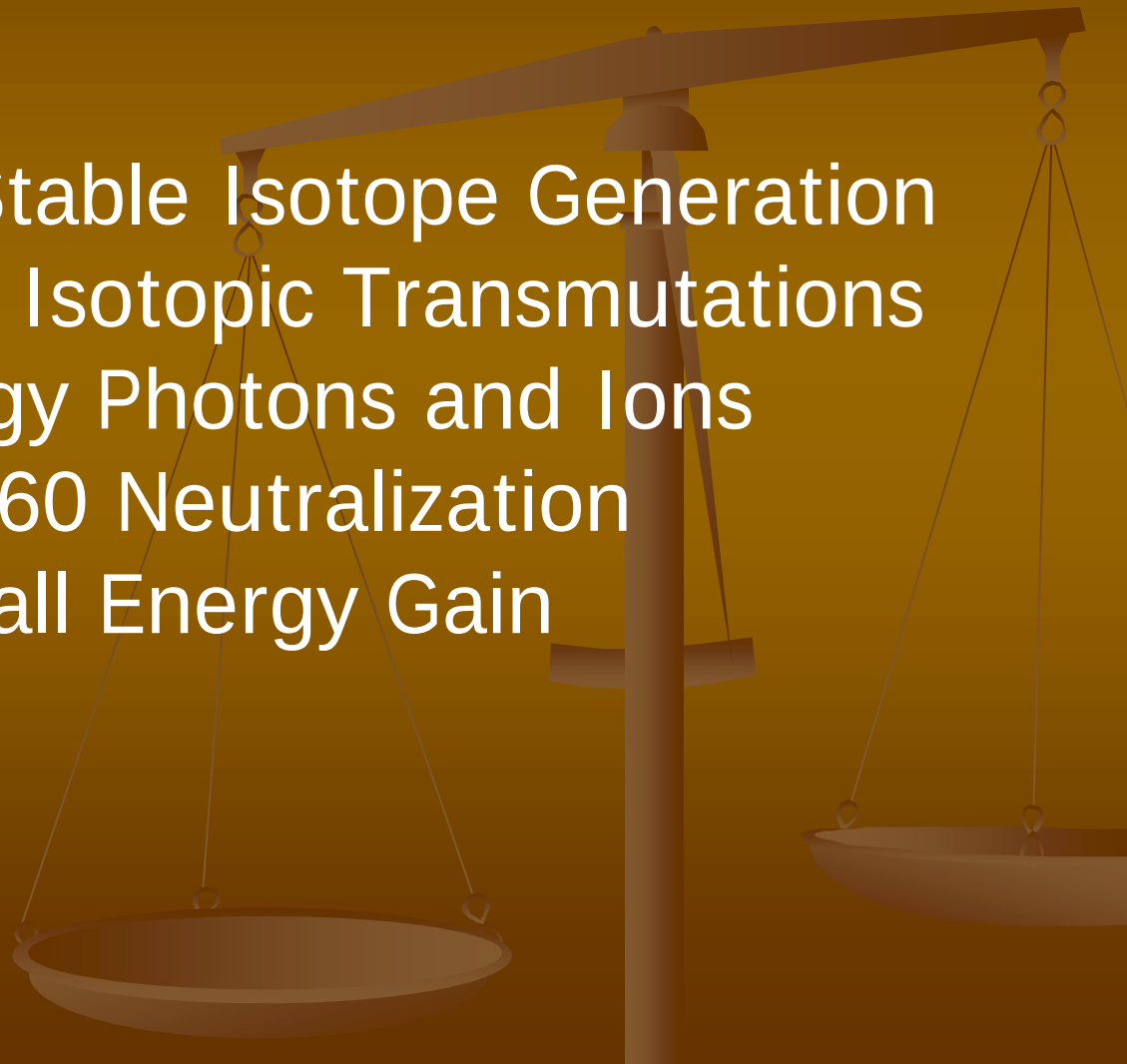
**S.V. ADAMENKO**

**PROTON-21 ELECTRODYNAMICS LABORATORY**

**KYIV 2004**

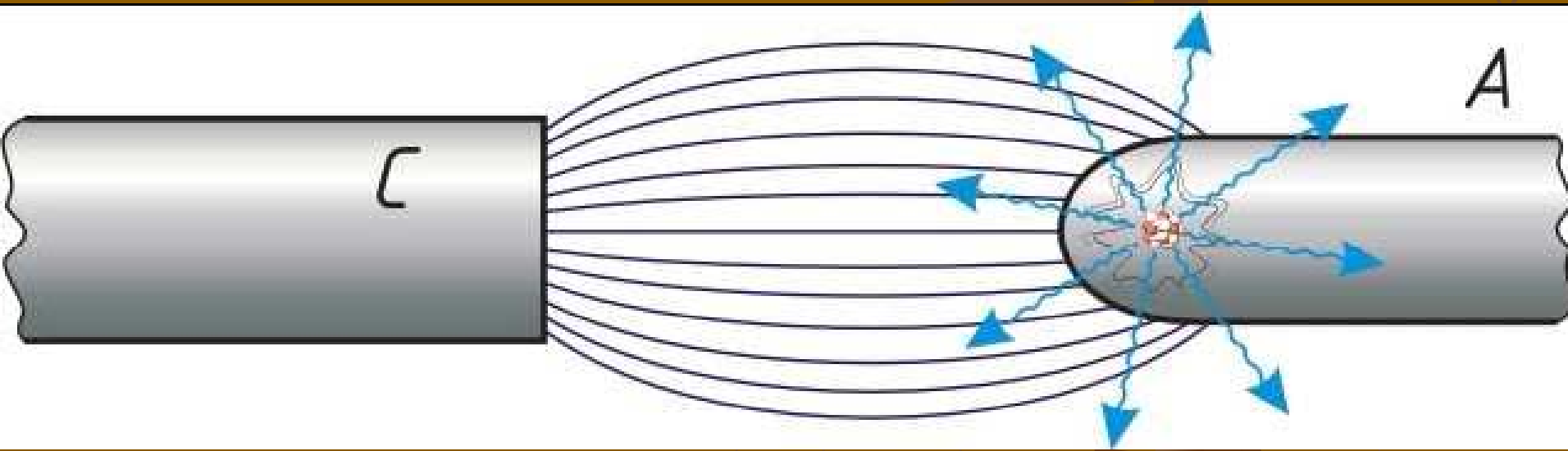


# Adamenko Nuclear Conversion

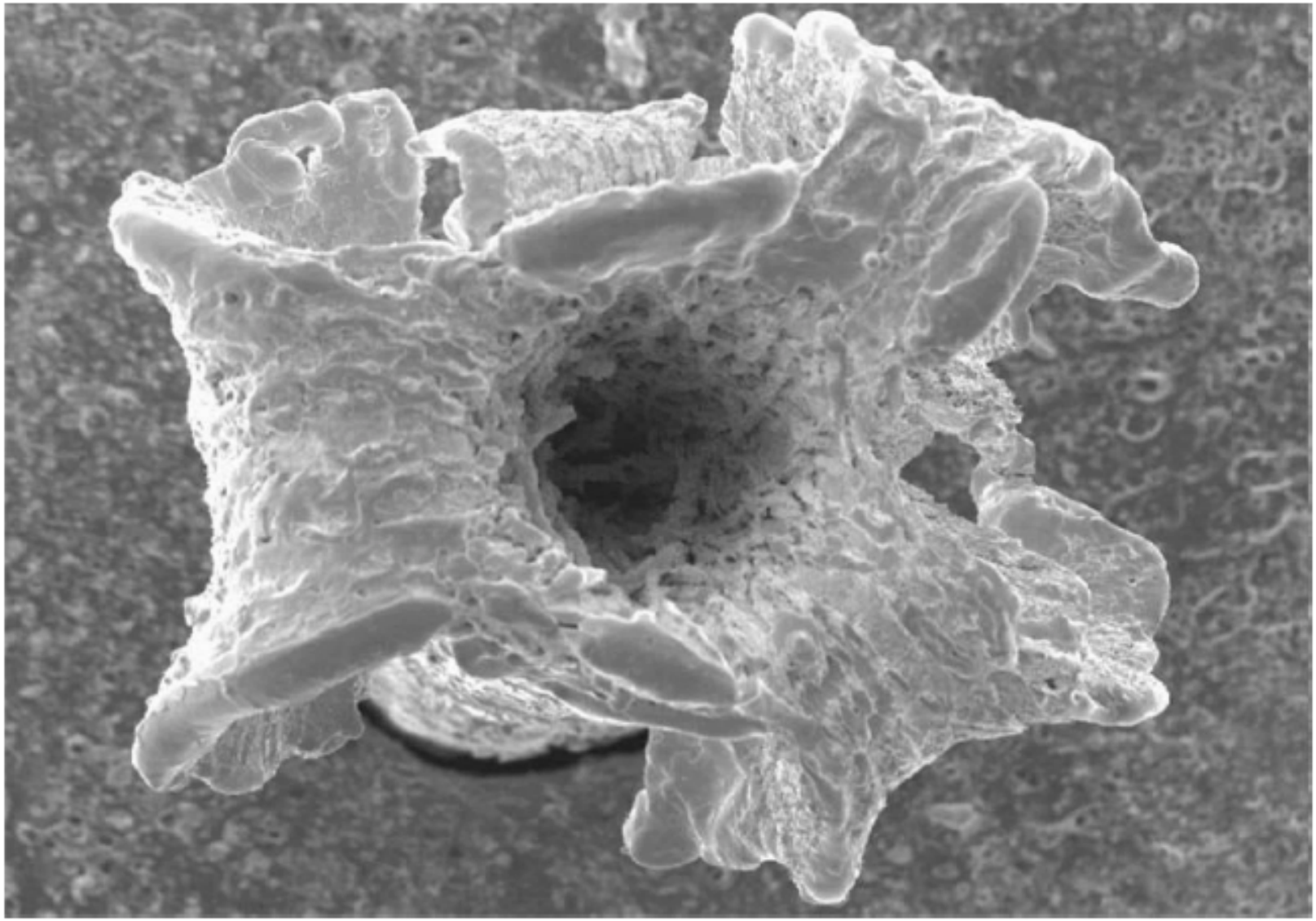


Super-Heavy, Stable Isotope Generation
Wide Range of Isotopic Transmutations
High Energy Photons and Ions
Cobalt 60 Neutralization
Overall Energy Gain

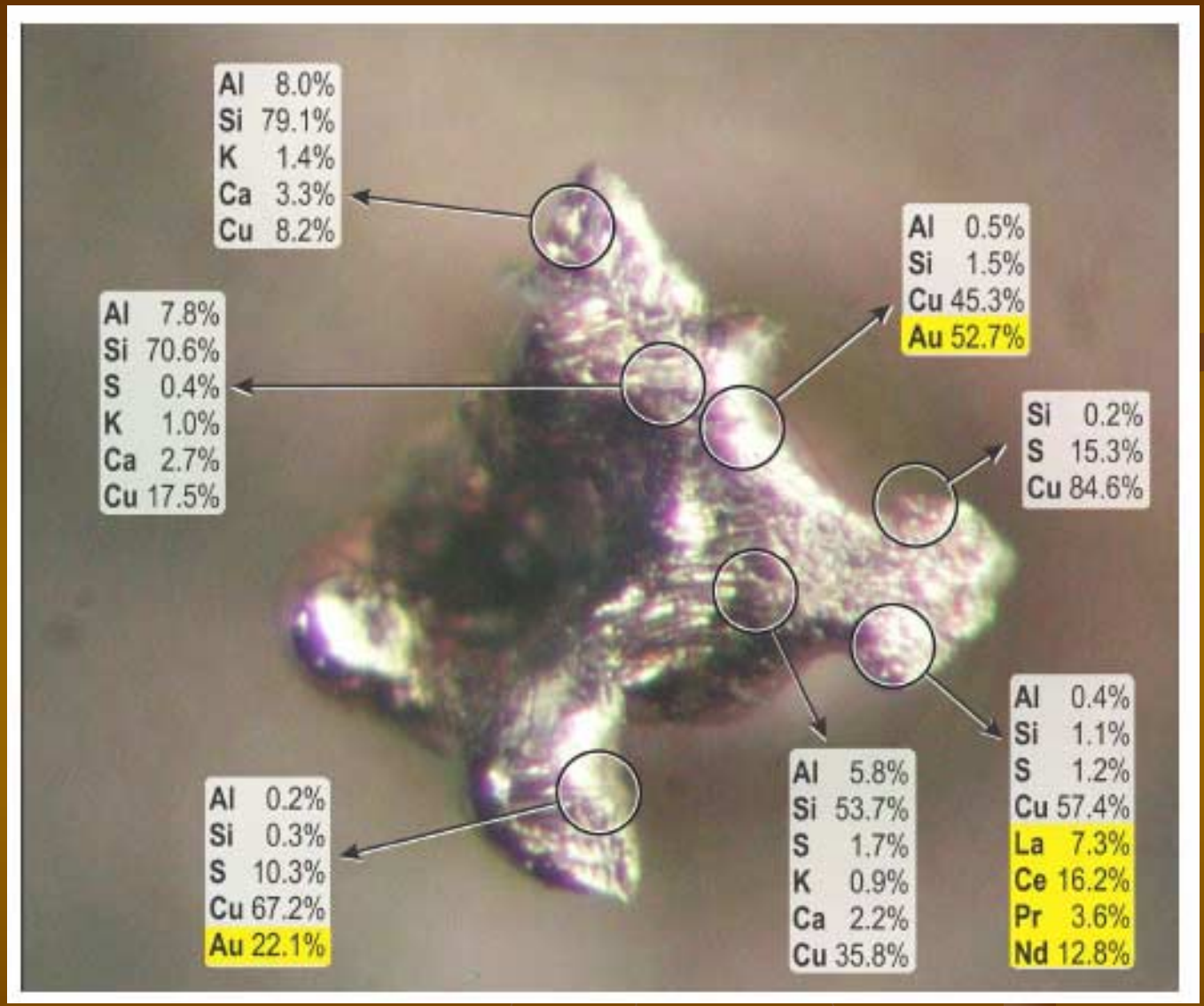
# ELECTRODE CONFIGURATION FOR ADAMENKO WORK



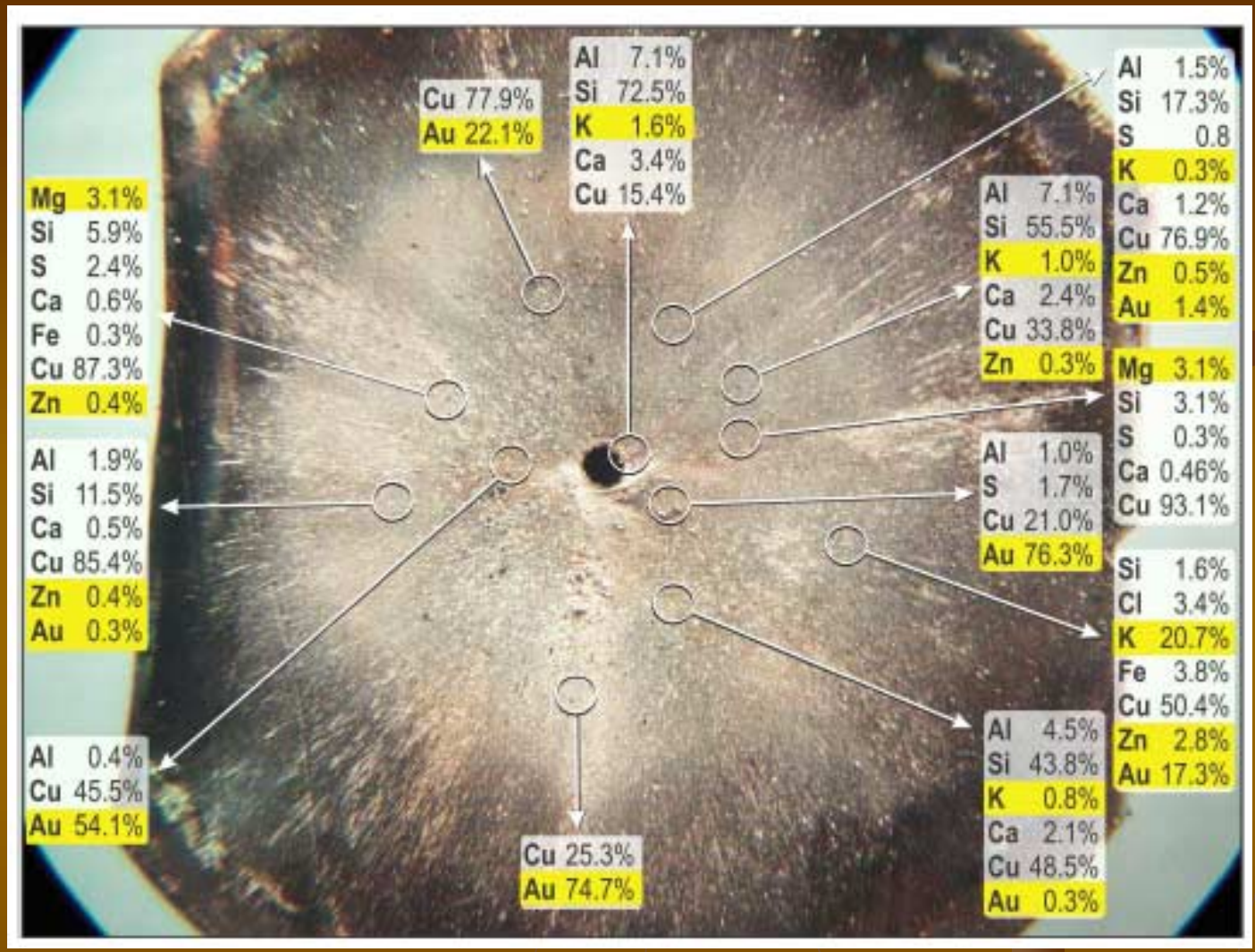
# SEM OF COPPER ANODE SUBJECTED TO ELECTRICAL DISCHARGE



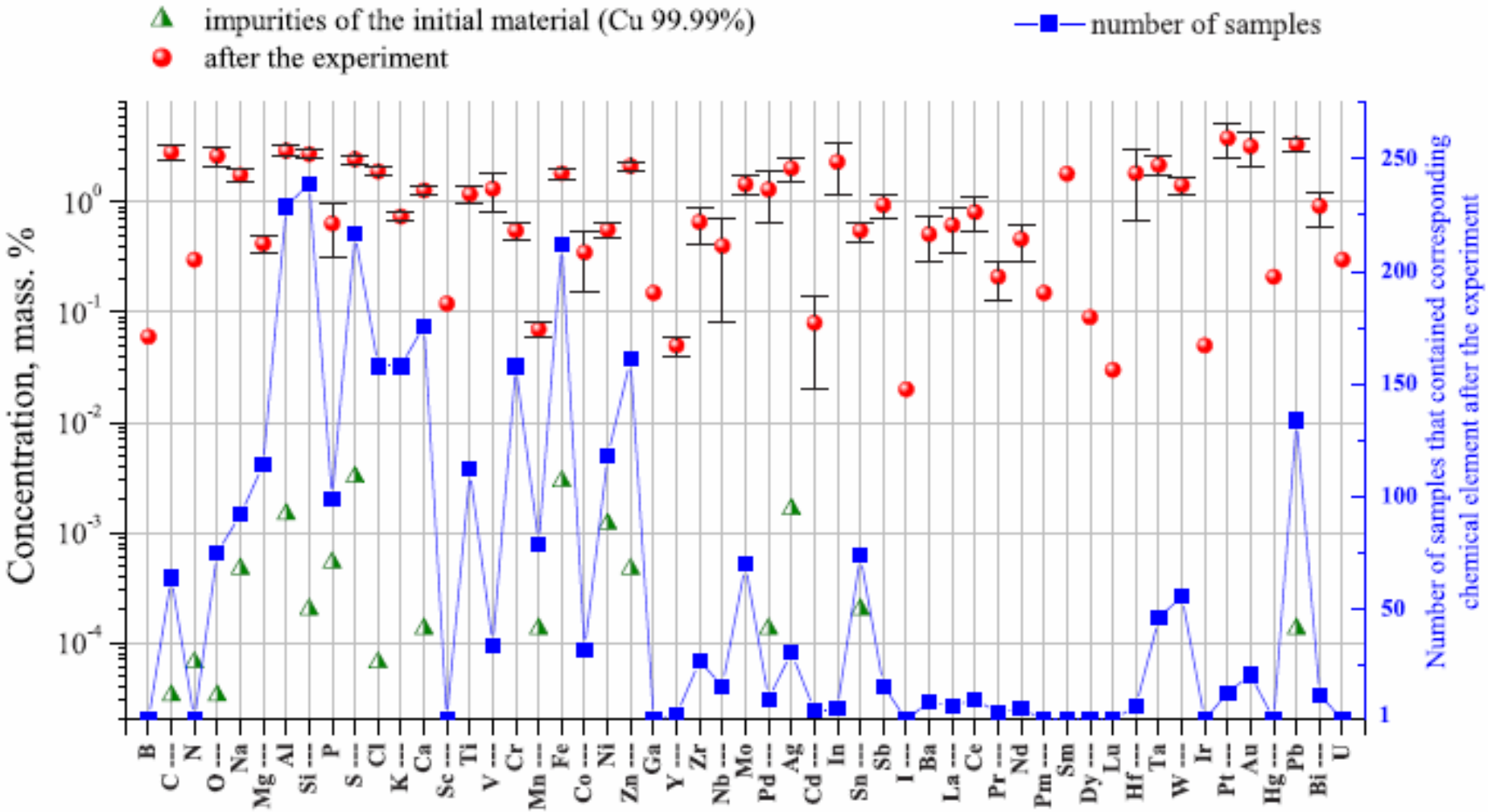

*Copper target after the experiment, with traces of solidified silver-and-white “lava” on its “petals”, which had flowed out of the target center.*




*Target after experiment No. 2107. Material of both the target and the accumulating screen is copper (Cu 99.99 %). The method of investigation is X-ray electron probe microanalysis (REMMA102 device, element detection range: from Na to U).*




*Accumulating screen after experiment No. 2107. Material of both the target and the accumulating screen is copper (Cu 99.99 %). The method of investigation is X-ray electron probe microanalysis (REMMA102 device, element detection range: from Na to U).*




*Results of local analyses of the element composition in 277 copper (Cu mass. 99.99 %) accumulating screens, each of them was used in the experiment with copper target of the same purity. The method of investigation is X-ray electron probe microanalysis (REMMA102 device, element detection range: from B to U).*

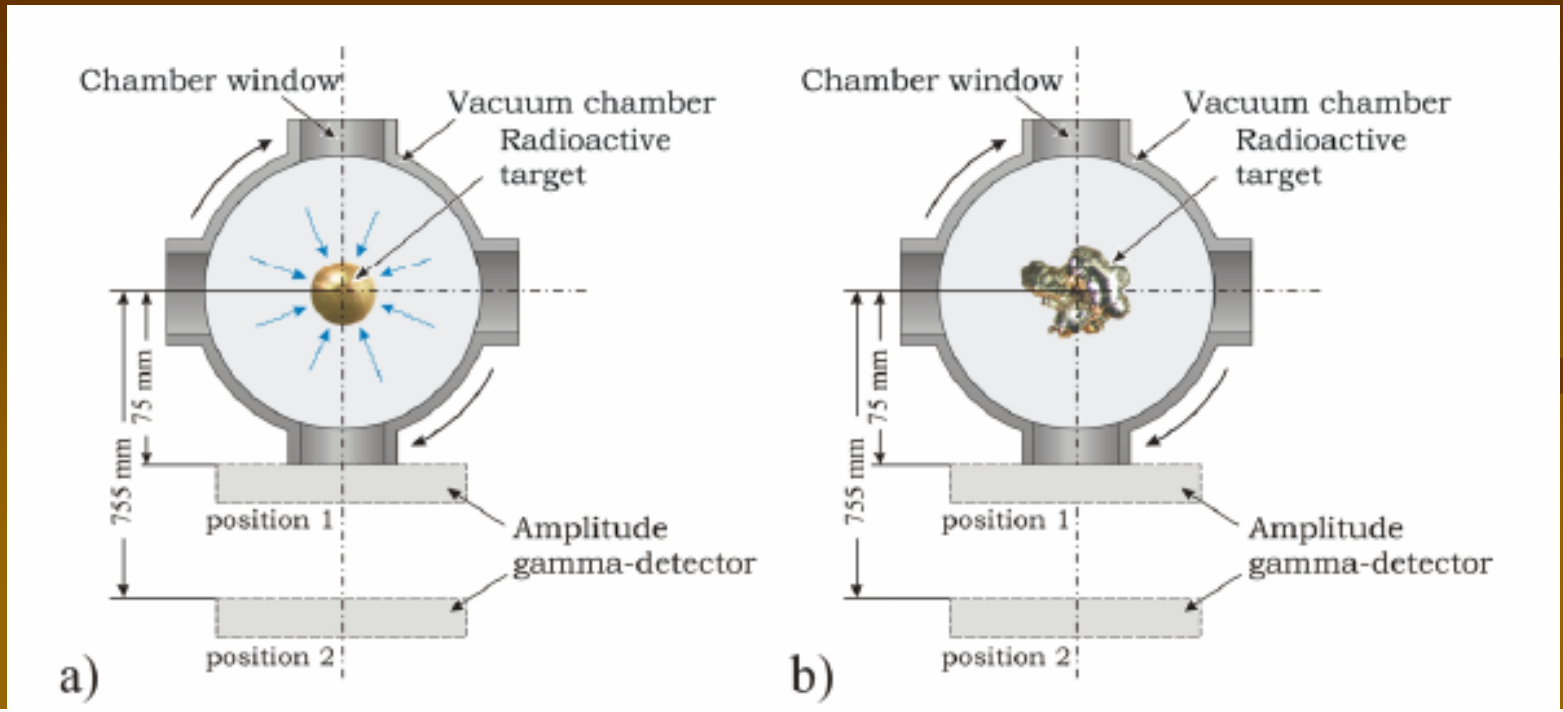



Table 1. *Decrease in the gamma-activity of $^{60}Co$ after the experiment.*

| Sample No. | Decrease in the gamma-activity, % | Sample No. | Decrease in the gamma-activity, % | Sample No. | Decrease in the gamma-activity, % |
|---|---|---|---|---|---|
| 2397 | 48 | 2479 | 2 | 2588 | 47 |
| 2398 | 11 | 2481 | 23 | 2600 | 33 |
| 2425 | 22 | 2534 | 30 | 2769 | 29 |
| 2426 | 17 | 2558 | 23 | 2770 | 36 |

# LOW VOLTAGE

# NUCLEAR TRANSMUTATION

## WORK IN PROGRESS

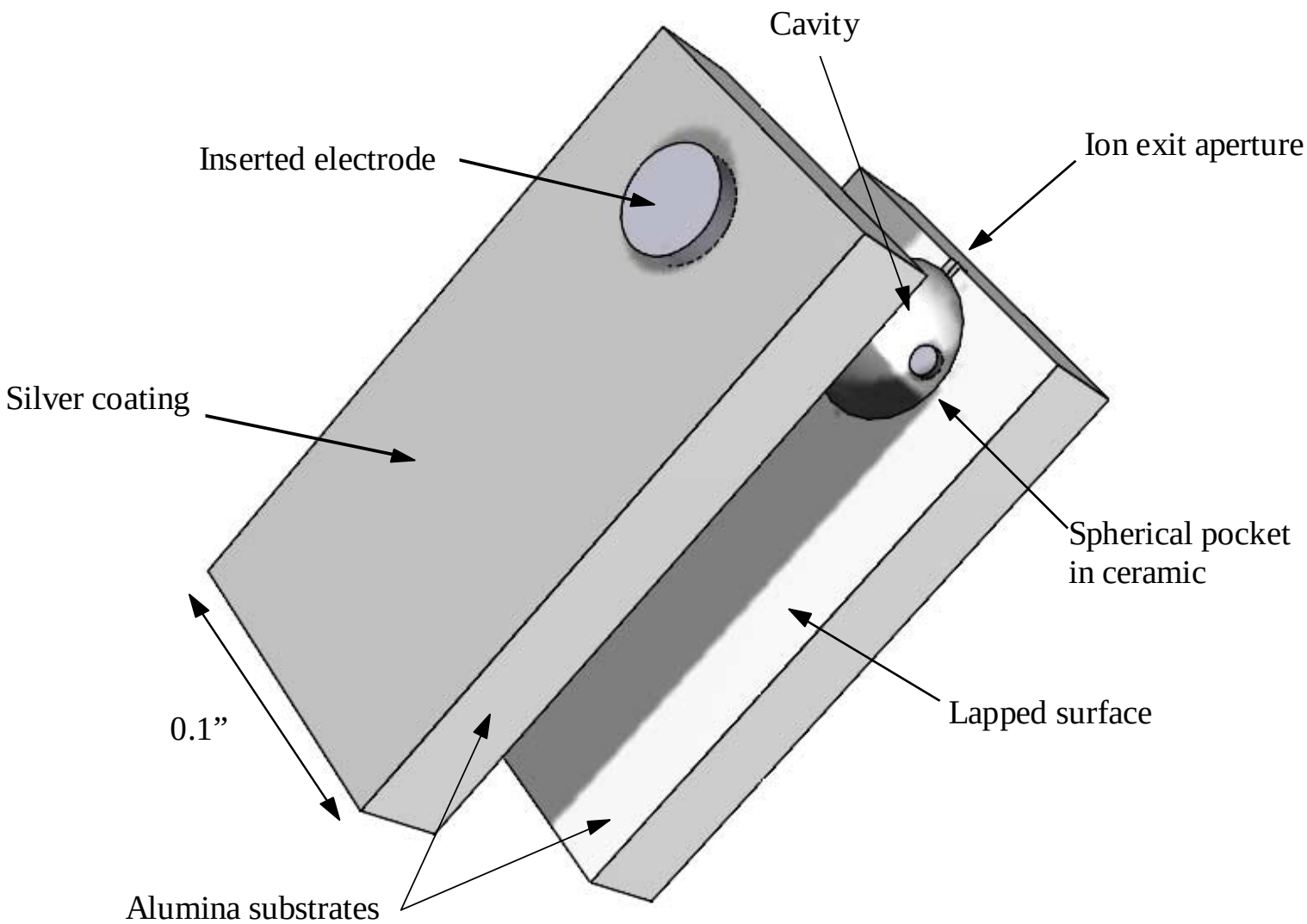
(Completion expected by June 2004 if sponsor is found)

by

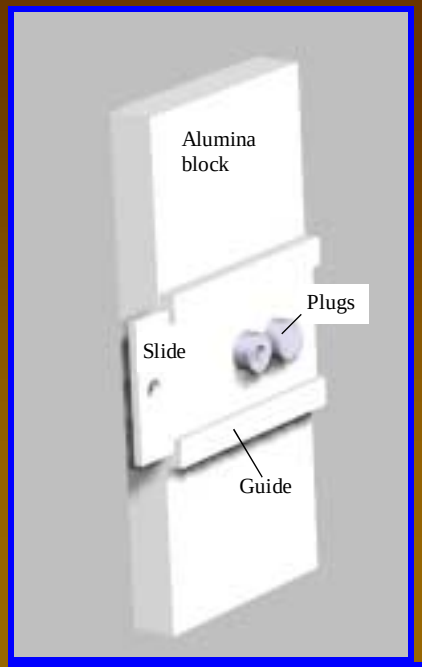
KEN SHOULDERS

Bodega, California

ION SOURCE

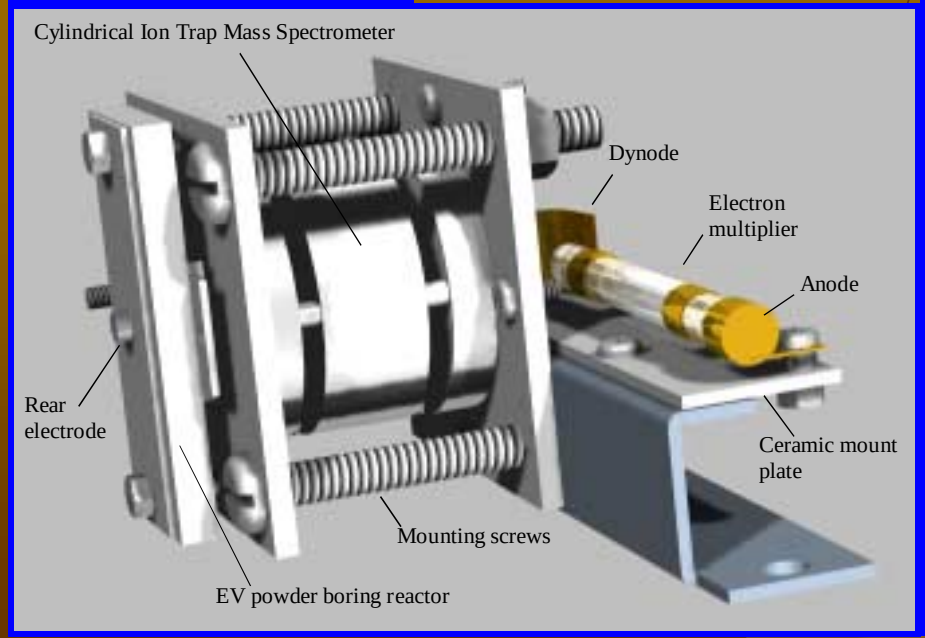

Cavity
Inserted electrode
Ion exit aperture
Silver coating
Spherical pocket
in ceramic
0.1”
Lapped surface
Alumina substrates

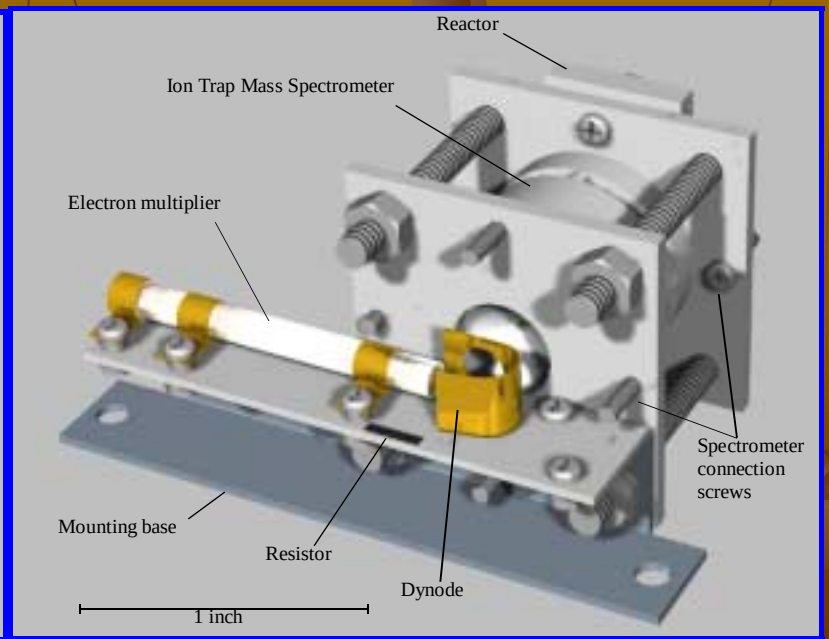
# EV REACTOR AND CYLINDRICAL ION TRAP MASS SPECTROMETER




EV REACTOR WITH SLIDE VALVE

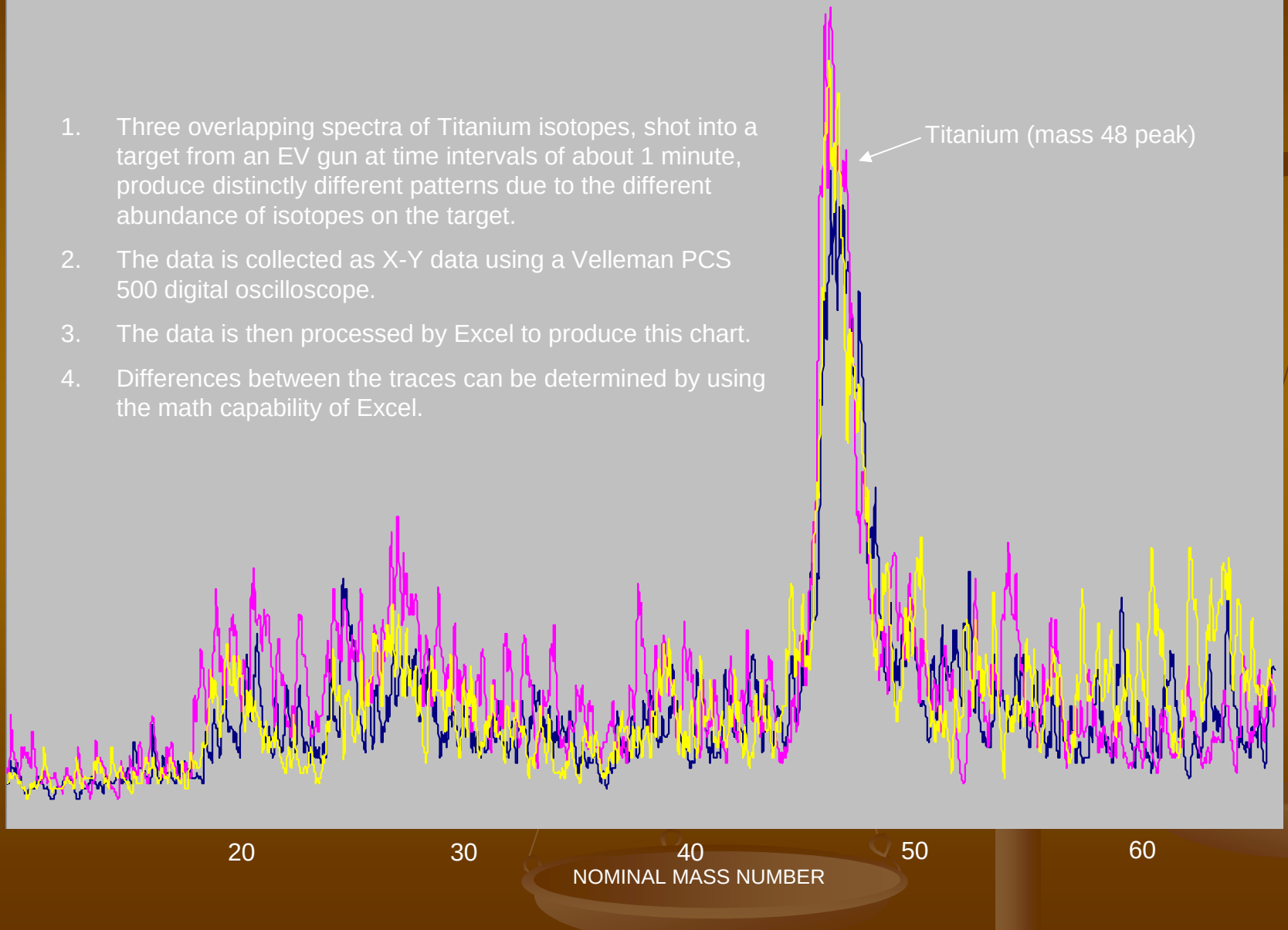
2 VIEWS OF CYLINDRICAL ION TRAP MASS SPECT.



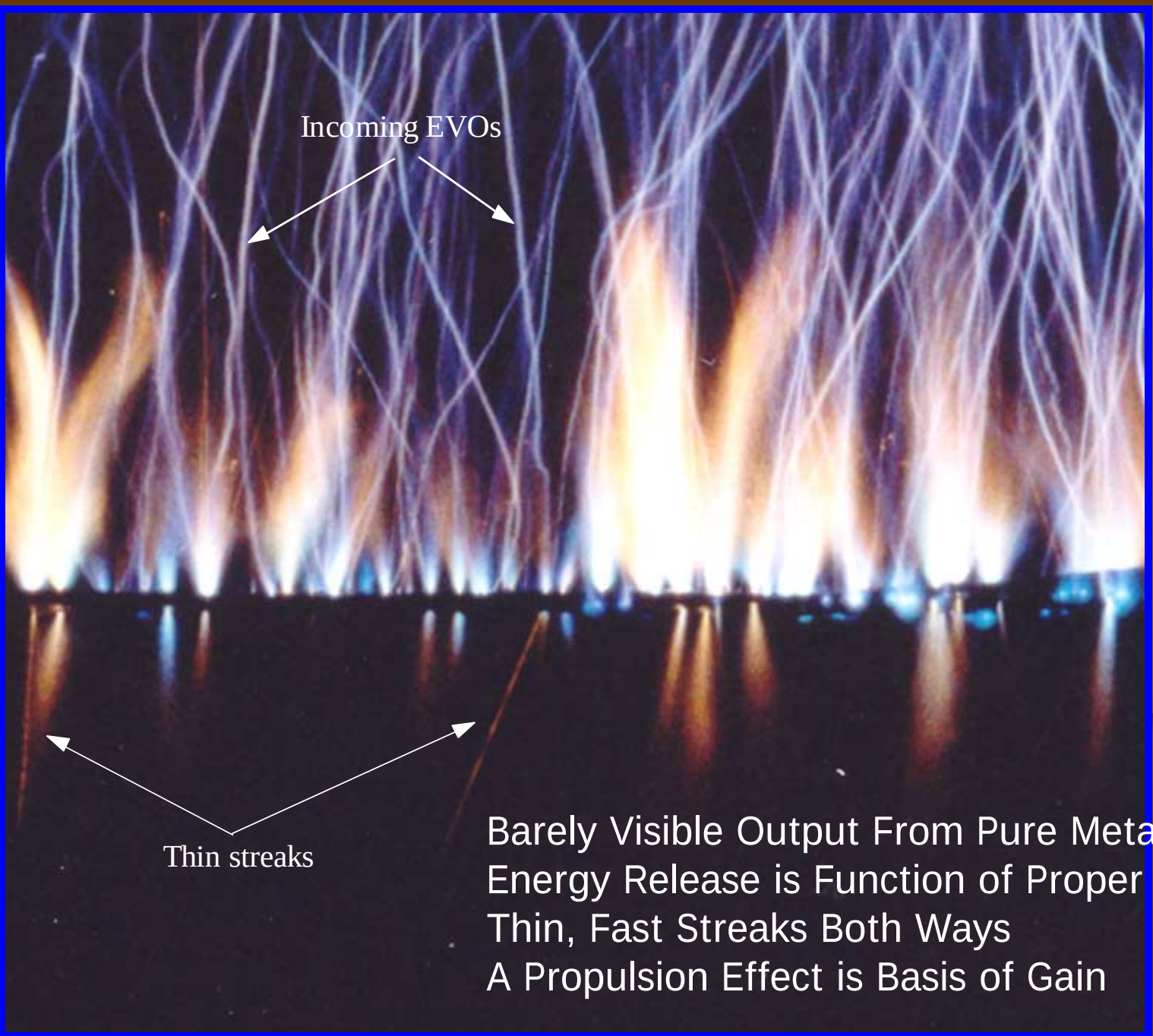



# FINDING WHAT'S NEW

1. Three overlapping spectra of Titanium isotopes, shot into a target from an EV gun at time intervals of about 1 minute, produce distinctly different patterns due to the different abundance of isotopes on the target.
2. The data is collected as X-Y data using a Velleman PCS 500 digital oscilloscope.
3. The data is then processed by Excel to produce this chart.
4. Differences between the traces can be determined by using the math capability of Excel.



# Edge View of Coated Aluminum Foil Being Struck by EVOs




Barely Visible Output From Pure Metal Strikes
Energy Release is Function of Proper EVO Loading
Thin, Fast Streaks Both Ways
A Propulsion Effect is Basis of Gain

Fig. 8 Front view of plasma plume with cover removed

Fig. 9 Side view of plasma plume with cover

Fig. 10 Plasma plume with apertures installed

## EVO Plume Generator

Single Metal Strike Barely Visible

Dense Metal Plasma Strike 500 Times Brighter

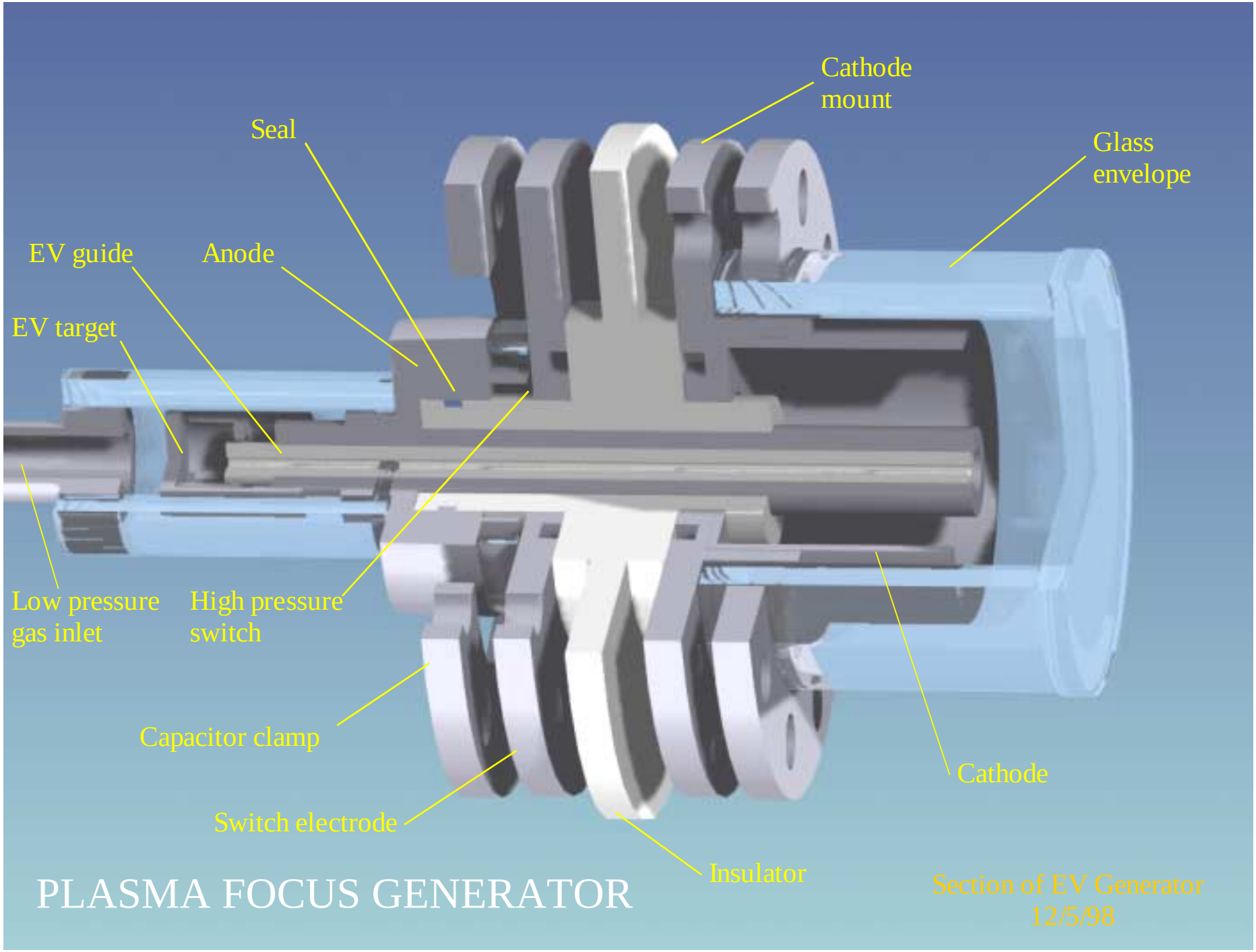
Dual, Synchronized EVOs Produced Increased Brightness

# Plasma Focus

Gigavolt Output For Kilovolt Input
Electron Cluster Generation Unrecognized
PF Commercially Available for Transmutation
Off-Axis Transmutation

Single EVO Capable of >50 KeV Output From 1 KeV Input (Superluminal Paper by KS)

PF Scaling Effects




# PLASMA FOCUS GENERATOR

Section of EV Generator
12/5/98

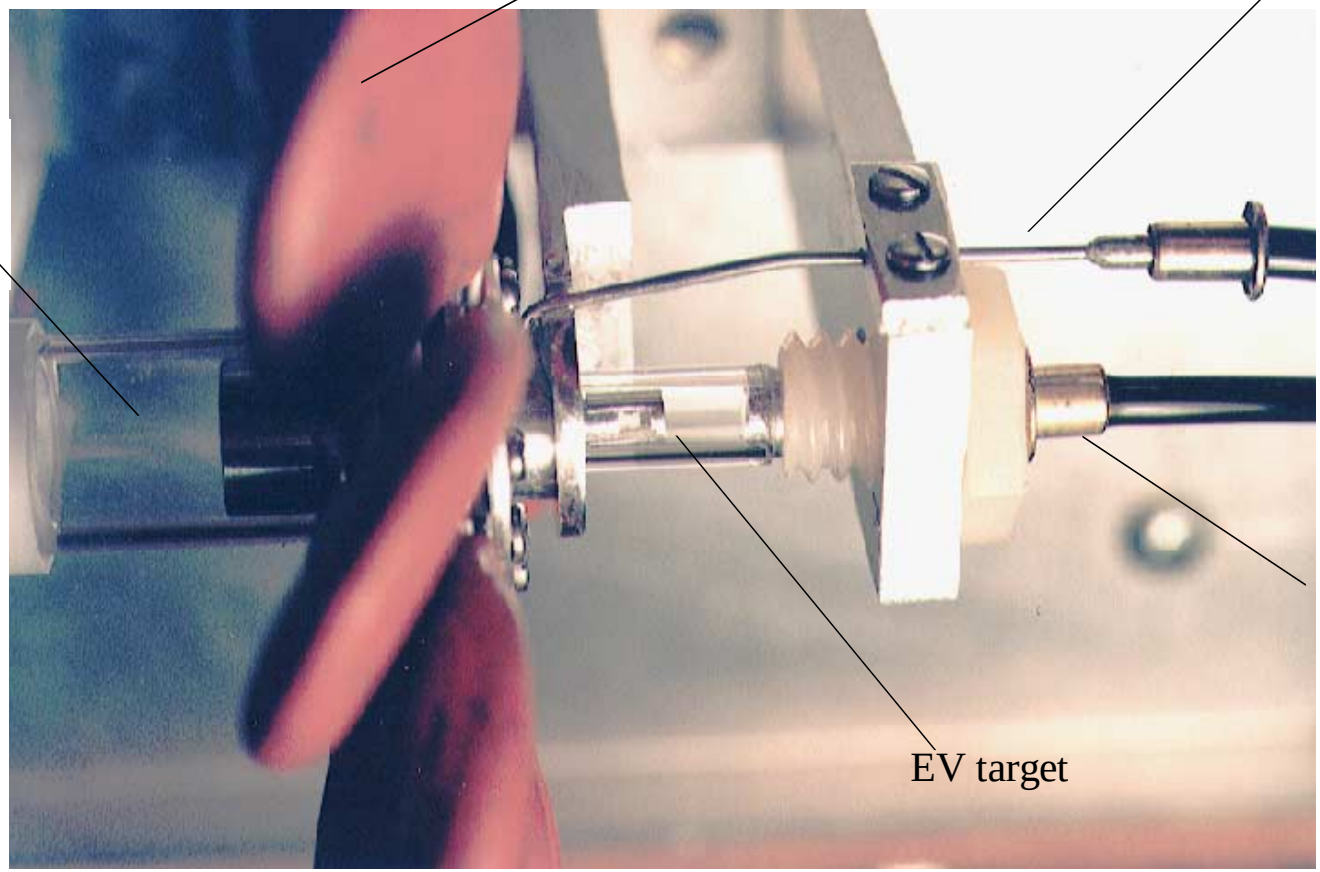
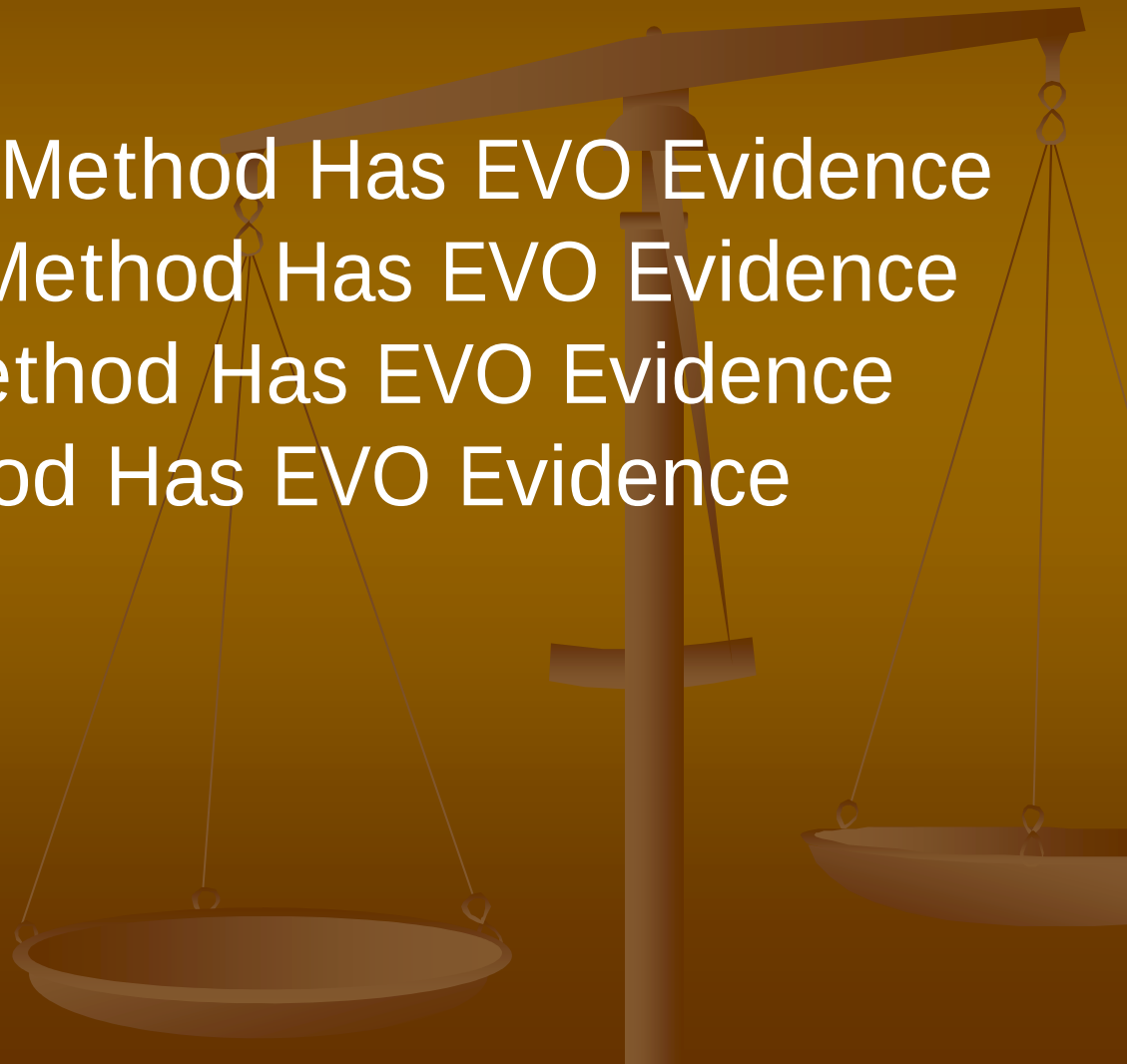

Energy storage capacitors
High pressure gas inlet
Plasma focus chamber
Low pressure gas line
EV target

Fig. 3

# Cold Fusion

Thermal Cycling Method Has EVO Evidence
Gas Discharge Method Has EVO Evidence
Electrolytic Method Has EVO Evidence
Sonic Method Has EVO Evidence



# Summary

All Listed Technologies Utilize EVOs as Base Technology

Thermal Output Capability Only by Destruction

Electrical Output Without Device Destruction

Notion of Proper Component Design as Gain Basis

With Proper Design, Hutchison Effect Could Function as Claimed at The Low Power Actually Used

# THE ENERGETICS OF THESE TECHNOLOGIES ALL HAVE A COMMON BASIS IN ELECTRON CLUSTERING

PLASMA FOCUS

HUTCHISON EFFECT

ADAMENKO WORK

EVO ENERGY PRODUCTION & TRANSMUTATION

COLD FUSION

# OUR NEXT ERA OF ENERGY HANGS IN THE BALANCE

WEIGH IT CAREFULLY