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Content

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Mental field-water interaction as evidenced by Isothermal Convection Flow Calorimetry (ICFC). II. Effect of convection flow power.

Experiments on ICFC [1] were resumed by increasing the heating current (Ih) driving the convection flow and inserting a heat sink on the cold arm of specimen holder (Figure 1) in view to minimize temperature increase at the saturation.

Figures 2, 6, 8, 10 and 12 show the stepwise increase of liquid temperature as a result of Ih onset for freshly boiled and quenched tap water and 0.4mol(CuSO4.5H2O)/L solution. It is important to observe again the wavy shape for this solution especially for the 72 hours annealed in situ specimen (Figure 6). The temperature increase is much delayed and attenuated by the big molecular clusters. The insert of solution specimen in the ICFC device with the help of a syringe with a long needle destroys the initial clusters restored by annealing in situ.

Figures 3, 7, 11 and 13 present the temperature perturbations by my close presence ("Close Encounter Experiments", CCE) for approximately 60 seconds next to the ICFC device (see details in [1]). These experiments were performed shortly after reaching the saturation value of liquid specimens. It has to observe again the resulted effect of temperature increase which means a breakup of bonds between flowing lines, excepting for Ih = 191 mA where the effect is reverse.

It is important to note the temperature variations at long time (baseline) after insert of the liquid specimens and Ih onset. Although, the both ends of the glass specimen holder were covered, the evaporation process was observed for both specimens of water and electrolyte solution at all Ih values. However, before the liquid level drops significantly, the temperature baseline at long time showed dramatic variations (Figures 4, 5 and 9). I remind that baseline is defined for saturation convection flow without EEC. The close visual inspection of the liquid specimens after these blank experiments of the baselines did not reveal any formation of air bubbles or other structural changes responsible for these variations. Double blank experiments (without convection flow, Ih=0, and without CEE) at long time were repeated in view to test the stability of the overall measuring system and eventual other sources for this process, so the baselines resulted as completely smooth.

These dramatic changes in baselines mostly appear as explosive endothermal processes associated to structure breaking processes followed by slower exothermal structure forming processes. It results that highly ordered and oriented flowing lines reached by long term convection flow are suddenly and partially destroyed followed by new structuring processes. The problem is: what the exact factors which determine these explosive destructuring processes are. Certainly, the more ordered structures are reached, the more sensitive and unstable these become. If we take into consideration that the amplitude of structuring processes increases with Ih (see bellow), the endothermal effect in the CEE for Ih = 158 mA (Figure 11 and 13) is determined by mental field on high sensitivity structures in flowing lines. A threshold value for Ih can be determined for each water, solution sample and mental field in standard experimental conditions.

In fact, the exothermal processes observed in almost CEE for Ih < 158 mA (see for instance Figure 3) consist in at least two simultaneous processes: (i) additional structuring process inside the flowing lines (ordered paracrystalline phase along the flowing direction [2]) and (ii) the weakening of the coupling strength between the flowing lines. The overall process appears as "shrinkage" of the flowing lines and increase of their mobility (CS between them decreases). In the reverse case (see for instance Figures 4 and 11), endothermal processes is mainly given by a destructuring process inside the flowing lines.

The stepwise temperature increase at a given Ih, appears after an induction time, ti, which defines the specific threshold heat energy, Eh = Ph*ti, (Ph = dissipated heat power = (Ih^2)*42 Ohm) which activates the convection flow. Temperature variation after ti can be fairly described by the sigmoidal model T =a*t/(b + t) (see Figure 2, t is time). Table 1 gives these parameters for water and electrolyte solution at each Ih value.

Figures 14-17 show significant inter-relations between these parameters. Some important features must be revealed: **(1)** linear relationship between a and b parameters (Figure 14) is crossing at a=b=0 and shows the same nature of all convection flow processes (excepting tap water at Ih = 143 mA); **(2)** linear relationship between a and Ph (Figure 15) for both water and electrolyte solution is crossing at a=Ph=0, excepting for electrolyte solution at Ih=83 mA; **(3)** slope of this relationship for electrolyte solution is greater than for water, and this can be explained by the fact that kinetic entities (their specific heat) in flowing lines in electrolyte solution are greater than in water. However, relationship between a and threshold energy, Eh = Ph*ti (not shown), results to be the same linear crossing at a=Eh=0 for both samples. **(4)** a/b = initial slope of temperature increase (at t = 0) and a are in linear relationship crossing at a/b = a = 0 for both liquid samples showing they are affine eigenvalues for the same transformation process [3]; **(5)** the same linear relationship between t1/2 = b and Eh for both liquid samples is crossing at b=Eh=0.

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[3] G. Dragan, Relationship between compatibility, internal stresses and stability in polymer composites. IV. Universal representation of amorphous and crystalline phases, Acta Polymerica, 36(9), 499-509 (1985); Solubility behavior introducing topoenergetic working principles, GDF Databanks Bull., 1(1), (1997).

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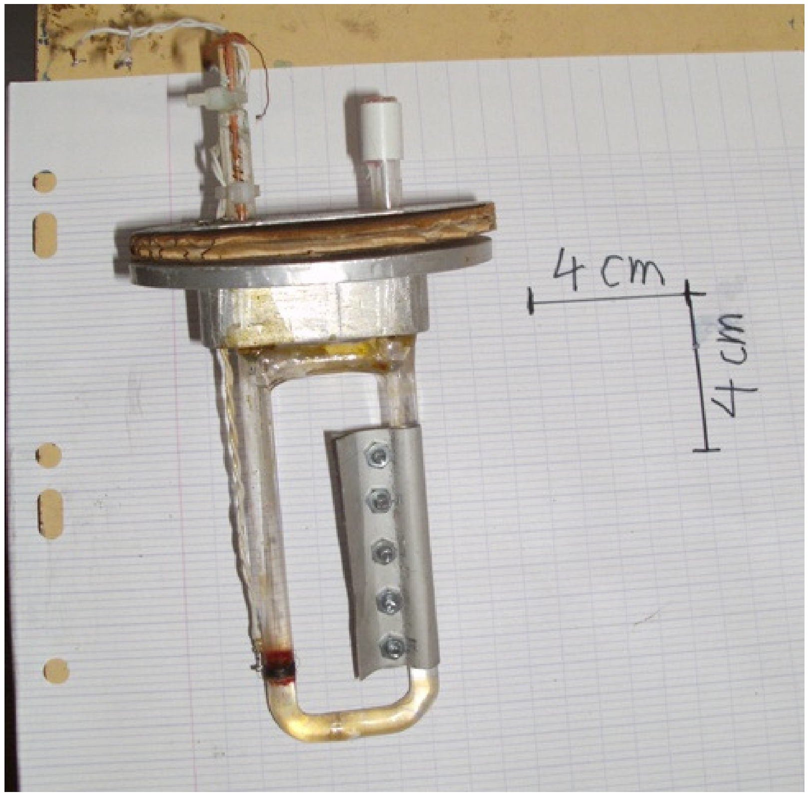


Figure 1.

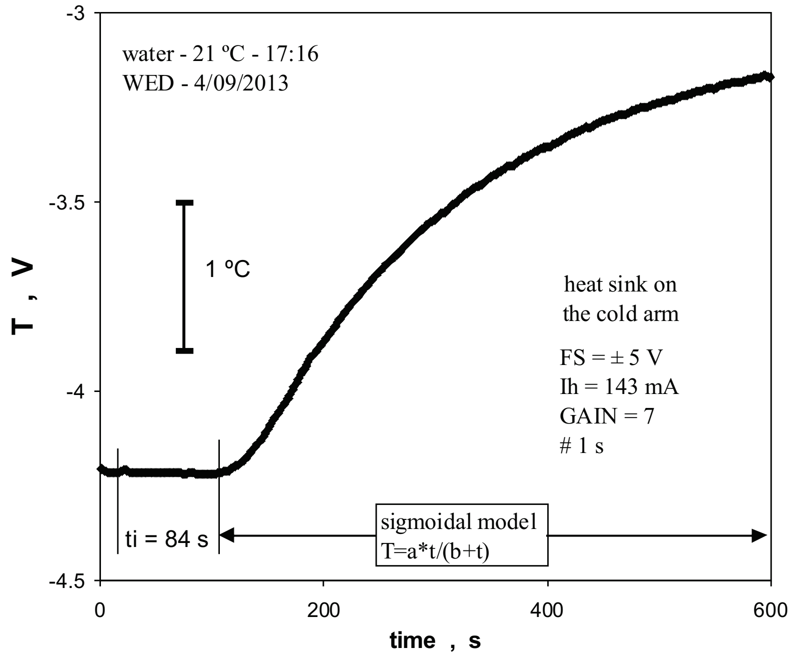
Table 1. Sigmoidal parameters according to the model: T = a*t/(b+t) for stepwise increase of temperature by convection flow.
Heat power dissipated by NTC-thermistor
≈ ((5 V/8200 Ohm)^2)*2000 Ohm = 0.74 mW.
(t=0 was considered after induction time = ti, see Figure 2).

water

Ih , mA	Ph , W	a , V	b , s	ti , s
83	0.289	0.359 ± 0.008	42 ± 2.5	48
143	0.859	1.634 ± 0.008	274 ± 2.6	84
158	1.049	2.823 ± 0.01	138 ± 1.7	31
191	1.532	2.987 ± 0.01	148 ± 1.5	30

0.4 mol(CuSO4.5H2O)/L

Ih , mA	Ph , W	a , V	b , s	ti , s
83	0.289	4.885 ± 0.39	203 ± 23	163
143	0.859	2.825 ± 0.013	124 ± 1.8	38
158	1.049	3.599 ± 0.019	109 ± 1.9	44



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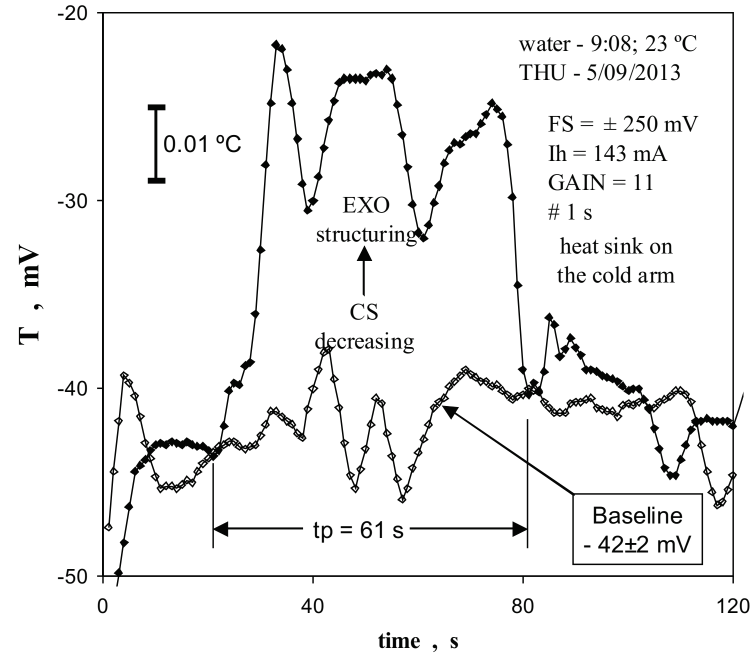

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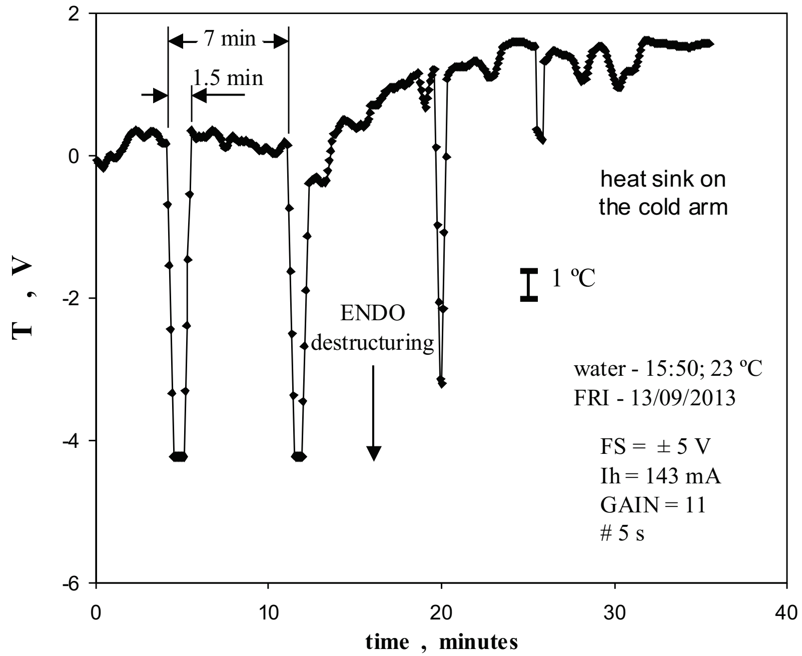

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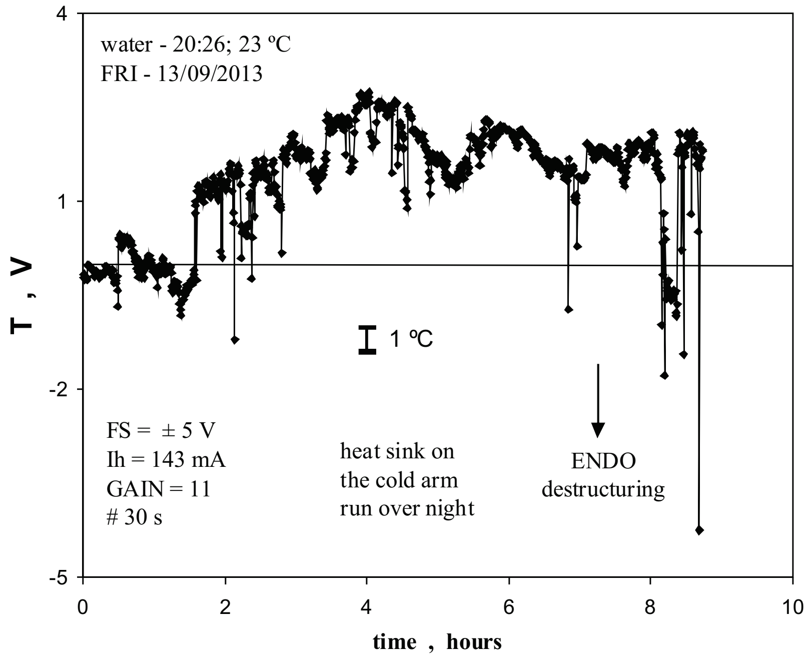

Figure 5.

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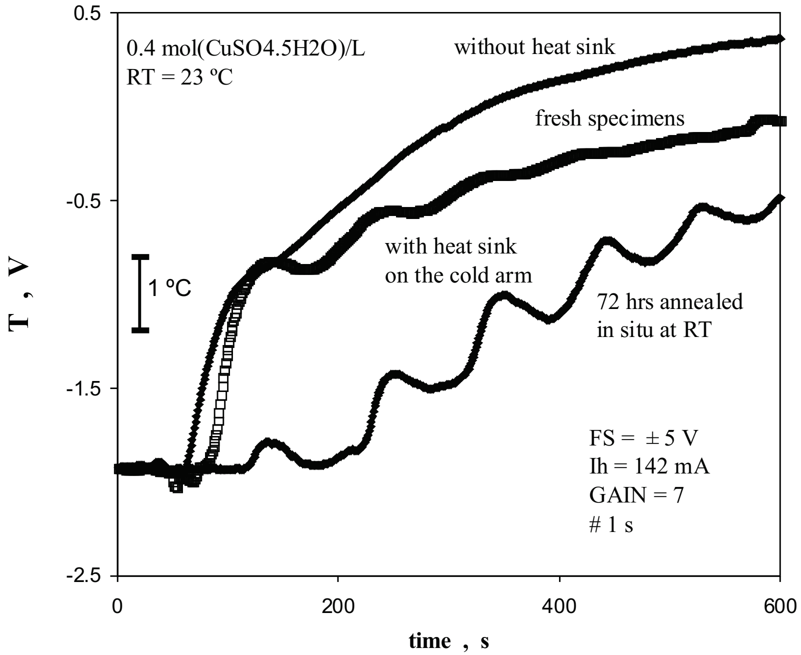

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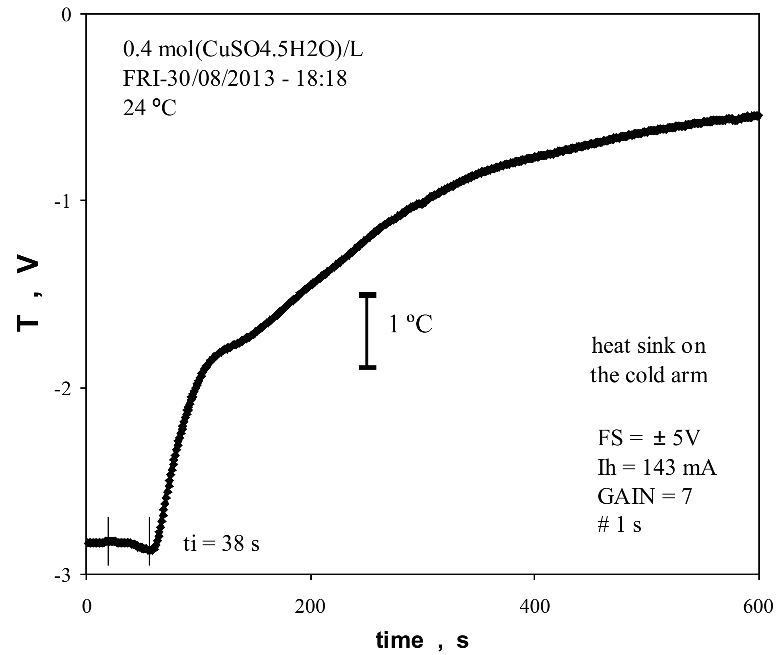

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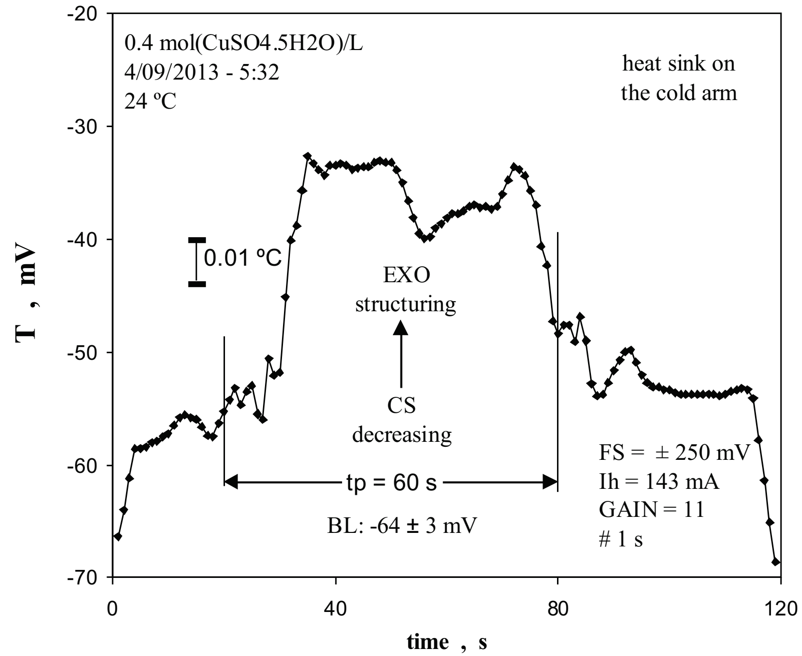

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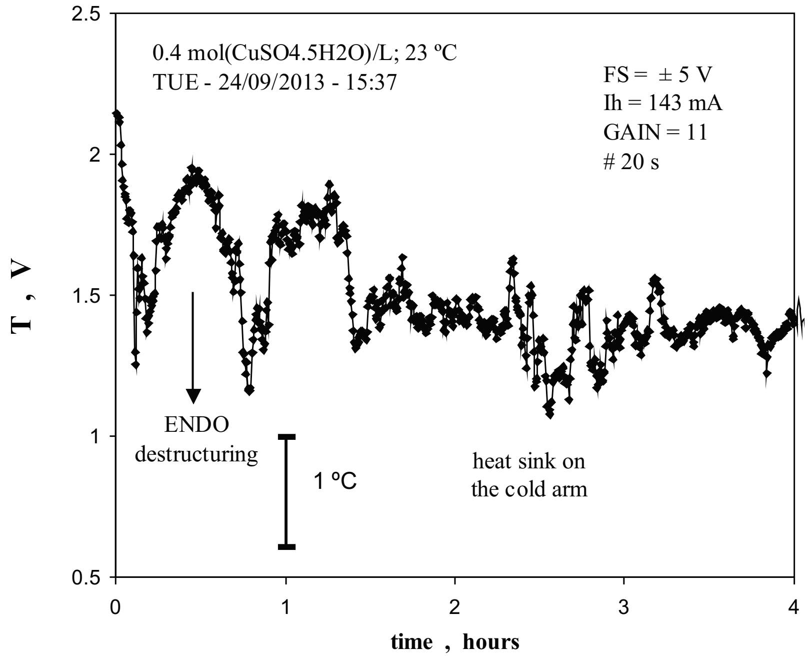

Figure 9.

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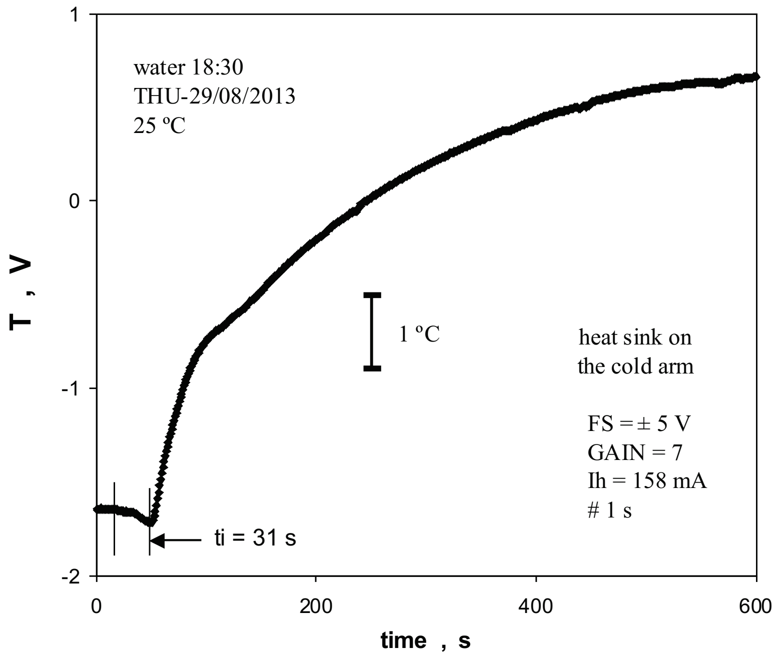

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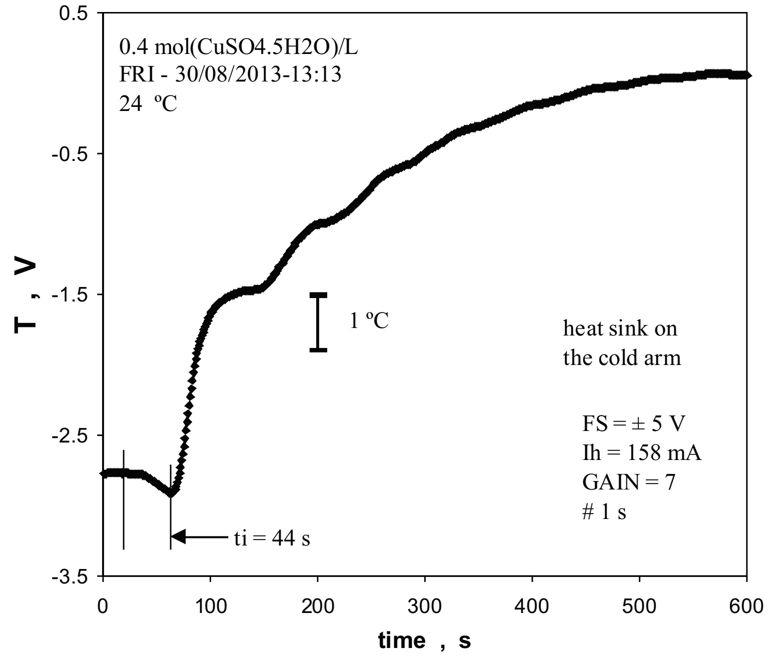

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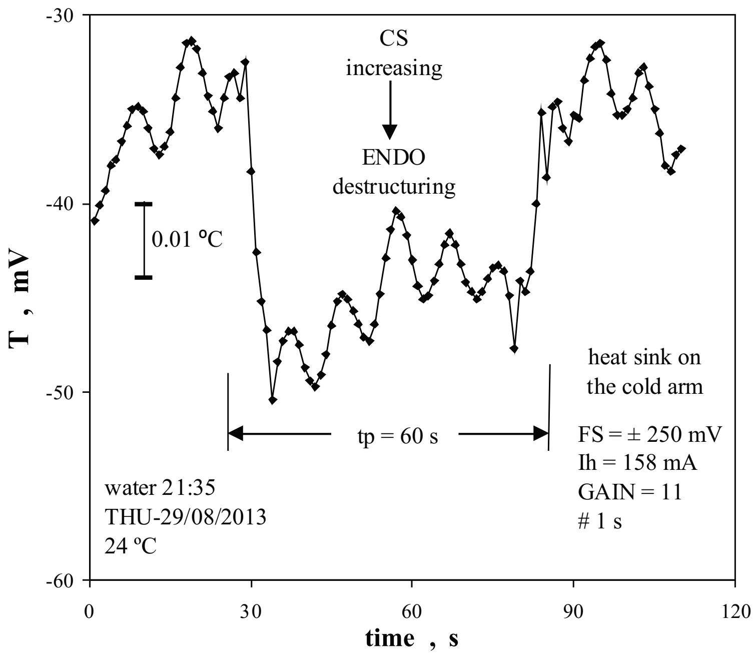

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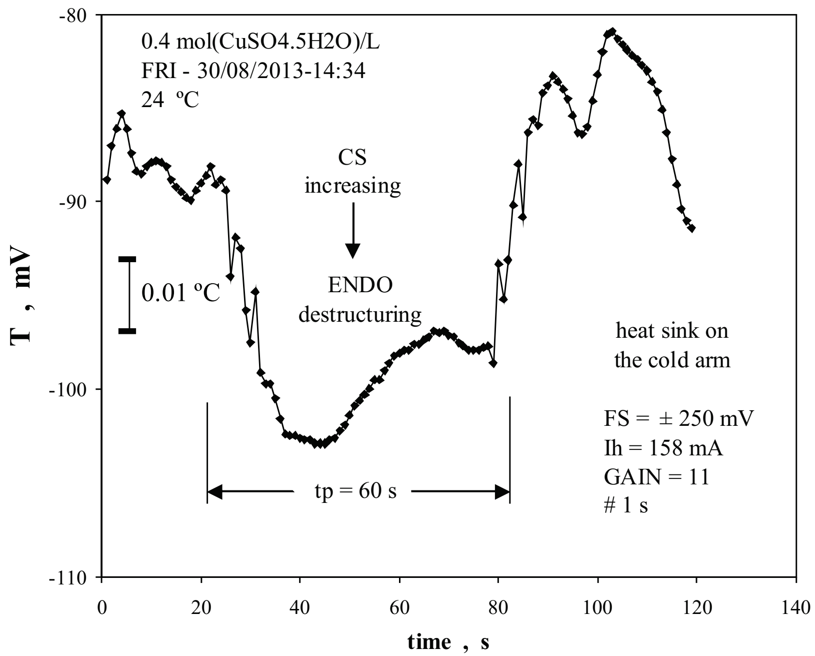

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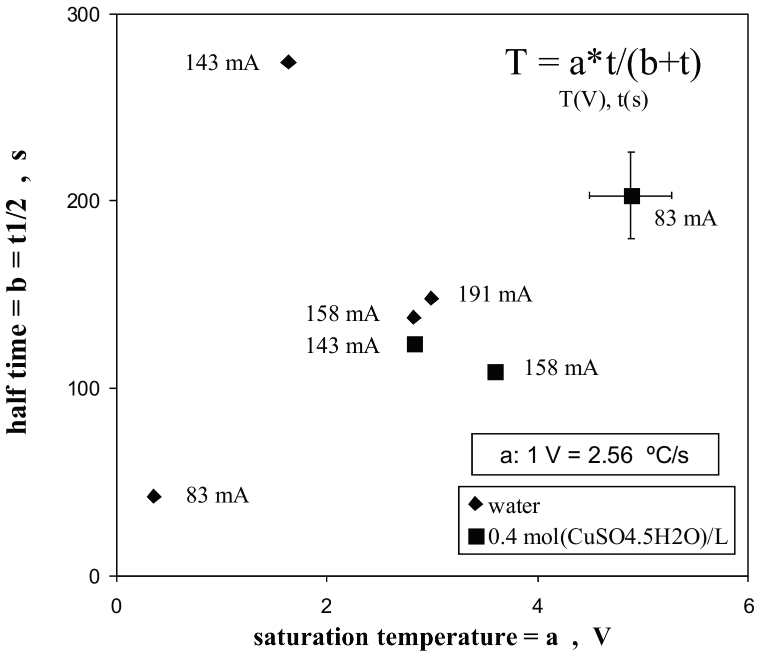
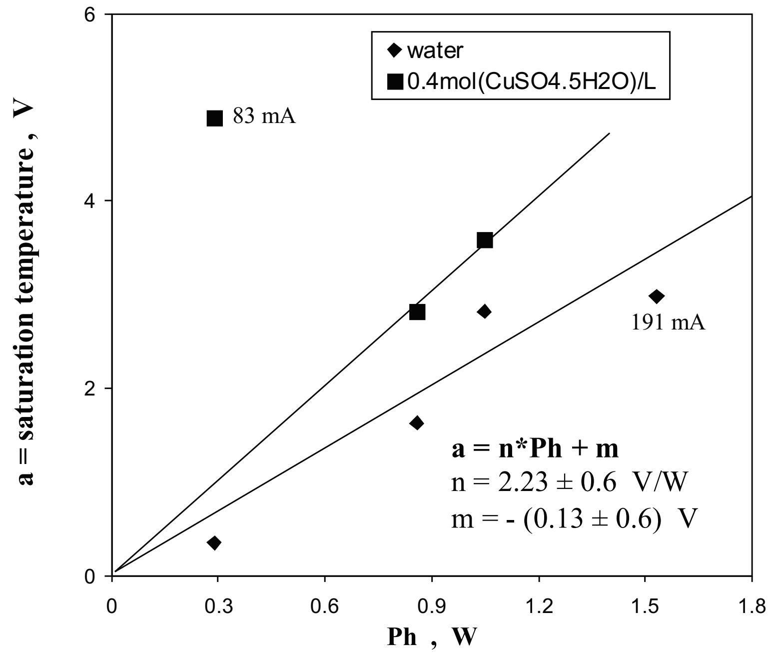


Figure 14.



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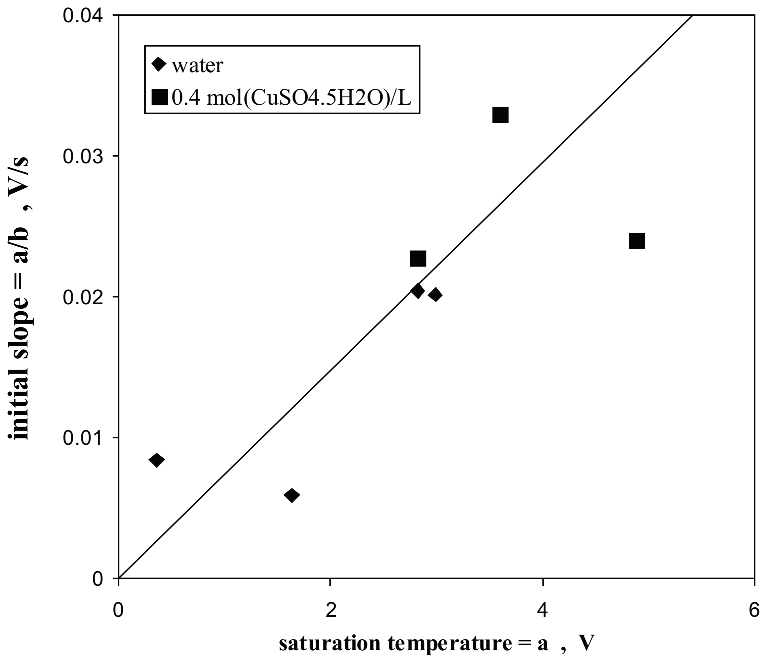

Figure 16.

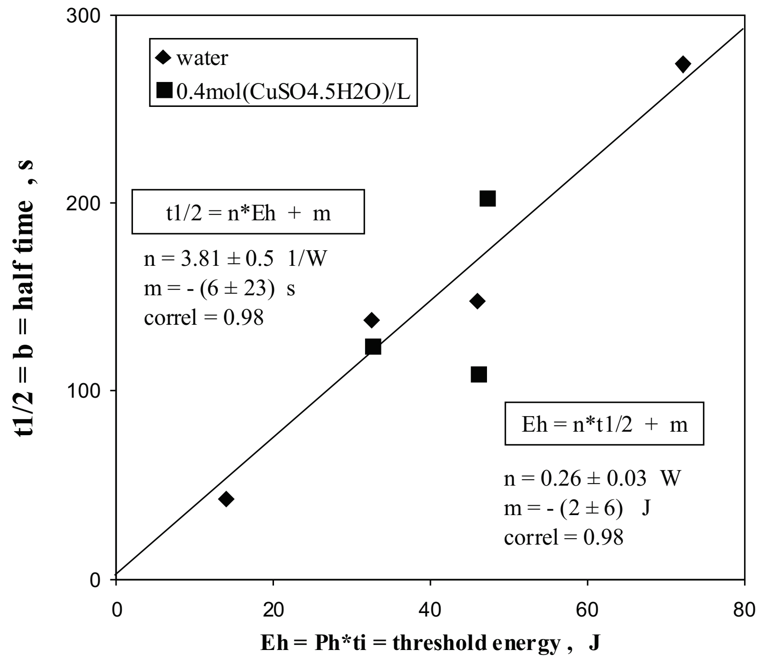

Figure 17.

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Previous issues of GDF DATABANKS BULLETIN

Year	VOL	NO	Content (titles)	$*)
1997	1	1	Editorial: Databanks – the compulsory language. LOGKOW – a Databank of evaluated octanol-water partition coefficients (James Sangster). Solubility behavior introducing topoenergetic working principles. Comments on 1-octanol-water partition of several n-alkane related series.	F
1997	1	2	Guide of good practice in metrology (Romanian)	AFI
1998	2	1	Editorial: socio-psychological implications in creation and utilization of a databank (Ioan-Bradu Iamandescu); Behavior in vapor-liquid equilibria (VLE): I. Structural aspects; Behavior in vapor-liquid equilibria: II. Several structures in databanks; Symposium on VDC-4 held on 30 October 1997 at Lubrifin-SA, Brasov (Romania).	F
1998	2	2	Practical course of metrology (Romanian)	AFI
1998	2	3	DIFFUTOR-01: Thermally driven diffusion in pure metals	AFI
1998	2	4	VAPORSAT-01: Databanks of thermally driven VLE. The first 100 simple molecules	AFI
1999	3	1	Editorial: New trends in material science: nanostructures (Dan Donescu) DIFFUTOR: Databanks of diffusion kinetics. VAPORSAT: Databanks of vapor-liquid separation kinetics.	F
1999	3	2	Discussions on Applied Metrology	AFI
2000	4	1	Editorial: Laboratory accreditation and inter-laboratory comparisons (Virgil Badescu) Doctoral Theses – important data banks. GDF intends to open new series of experiments on thermo-physical properties. Some comments on uncertainty: global budget and DFT analysis. Events: The 9th International Metrology Congress, Bordeaux, France, 18-21 October 1999.	F
2000	4	2	Measurement and Calibration.	AFI
2001	5	1	Editorial: Metrology ensures moral and technological progress. Topoenergetic aspects of amorphous-crystalline coupling. I. Composite behavior of water and aqueous solutions (paper presented at nanotubes and Nanostructures 2001, LNF, Frascati, Rome Italy, 17-27 October 2001). Events: Nanotubes and nanostructures 2000.School and workshop, 24 September – 4 October 2000, Cagliari, Italy.	F
2001	5	2	Editorial: Viscosity – a symptomatic problem of actual metrology. Visco-Dens Calorimeter: general features on density and viscosity measurements. New vision on the calibration of thermometers: ISOCALT® MOSATOR: Topoenergetic databanks on molten salts properties driven by temperature and composition.	F

2002	6	1	MOSATOR-01: Topoenergetic databanks for one component molten salts; thermally driven viscosity and electrical conductance.	AFI
2002	6	2	Editorial: HuPoTest - Operator calibration or temporal scale psychic test. MOSATOR: topoenergetic databanks of one component molten salts; thermally driven viscosity and electrical conductance.	F
2002	6	3	Editorial: Quo vadis Earth experiment? ISOCALT® : Report on metrological tests	F
2003	7	1	Editorial: Time – an instrument of the selfish thinking. 1st NOTE: Homoeopathy: upon some efficient physical tests revealing structural modifications of water and aqueous solutions. I. Mixing experiments.	F
2004	8	1	Metrological verification and calibration of thermometers using thermostats type ISOCALT® 21/70/2. Metrological verification and calibration of thermometers using thermostats type ISOCALT® 2.2R.	F
2004	8	2	Aspects of correct measurements of temperature. I. measurement of a fixed point according to ITS-90. Physics and Homoeopathy: some physical requirements for homoeopathic practice.(Plenary lecture at the 19th SRH National Congress, 21-22 September 2004, Bucharest, Romania)	F
2005	9	1	AWARD for ISOCALT® at the International Fair TIB-2004, October 2004, Bucharest. ISOCALT® 3/70/21 was awarded in a selection of 20 products by a commission of experts from the Polytechnic University of Bucharest. Upon some aspects of temperature measurements. (12th International Metrology Congress, 20-23 June 2005, Lyon, France)	F
2005	9	2	A new technique for temperature measurement and calibration. National Society of Measurements (NSM). Important warning for T-calibrator users: MSA has chose metrology well calibrators from Fluke (Hart Scientific).	F
2005	9	3	Universal representation of Cancer Diseases. 1. First sight on NSW-2003 report. Universal representation of Cancer Diseases. 2. UK cancer registrations on 1999-2002. Vital Potential can estimate our predisposition for cancer diseases.	F
2006	10	1	NTC – thermistors -1	AFI
2007	11	1	HuPoTest - 40 years of continuous research Basic rules for preventing and vanishing cancer diseases Climate change = change of mentality Hot nuclear fusion – a project of actual mentality	F
2007	11	2	MT – Introduction to Mental Technology HuPoTest – general procedure, assignments of results, specimen of complete test, order and obtain your complete HuPoTest report	F
2007	11	3	TRESISTOR© - data banks of materials with thermally driven electric and magnetic properties TRESISTOR© - NTC -1 - data bank of NTC thermistors	AFI

2008	12	1	Australian population: life, death and cancer	F
2008	12	2	Pattern of Cancer Diseases	F
2008	12	3	Adiabatic calorimetry – summary description of the demo prototype	F
2008	12	4	Flight QF 30 and even more… Temperature calibration of NTC-thermistors. 1.Preliminary results.	F
2009	13	1	Proposal for interlaboratory comparisons. Calibration of NTC-thermistors (The 14th International Metrology Congress, Paris, France, 22-25 June 2009).	F
2009	13	2	Sudoku – un algoritm de rezolvare. (Sudoku – an algorithm for solution).	AFI
2009	13	3	Cancer and Diabetes – as social diseases. (Open letter to all whom it may concern).	F
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2010	14	2	Measuring tools for subtle potentials; pas-LED: an efficient measuring tool for subtle potentials.	F
2010	14	3	Upon some features of cancer in Australia: 1982 – 2006.	F
2010	14	4	Cancer as an erosion process in human society.	F
2010	14	5	Cancer erosion in Australian human society: 1982 – 2006.	F
2010	14	6	Cancer erosion in German human society:1980-2008.	F
2011	15	1	Procedures and devices for energy and water saving. (I) (in Romanian).	F
2011	15	2	Structural and relativistic aspects in transforming systems. I. Arrhenius and Universal representations of thermally driven processes.	F
2011	15	3	Topoenergetic aspects of water structuring as revealed by ac electric conductivity.	F
2011	15	4	Topoenergetic aspects of human body	F
2011	15	5	HuPoTest: four month study of a case	F
2012	16	1	DTA study of water freezing. I. Upon some aspects of repeatability.	F
2012	16	2	DTA study of water freezing. II. Statistical features on one week of experiments.	F
2012	16	3	DTA study of water freezing. III. New facts on daily mental field.	F
2012	16	4	Mental field and state of health. Câmpul mental și starea de sănătate.	F
2013	17	1	DTA study of water freezing. IV. New facts on energy circuits.	F
2013	17	2	DTA study of water freezing. V. Effect of a mental antenna	F
2013	17	3	AC electric conductivity of untreated and mentally treated electrolyte aqueous solutions.	F
2013	17	4	DTA study of water freezing. VI. Mental field in a working day.	F
2013	17	5	DTA study of water freezing. VII. More statistical features on one week of experiments.	F
2013	17	6	HuPoTest: New measurements and results	F

2013	17	7	Time as unique base quantity. (Proceedings of the 16th International Congress of Metrology, 7-10 October 2013, Paris, France).	F
2013	17	8	Eurovision song contest. 1.Basic social aspects	F
2013	17	9	Mental field-water interaction as evidenced by Isothermal Convection Flow Calorimetry (ICFC). I. ICFC description and preliminary results.	F
2013	17	10	1. Procedure for defining standard liquids for viscosity based on topoenergetic principles. 2. Topological aspects of flow and deformation in polymer composites, The VIII-th International Congress on Rheology, 1-5 September 1980, Naples, Italy, pp. 375-376. 3. Universal representation of flow behavior based on topoenergetic principles, The IX-th International Congress on Rheology, 8-13 October 1984, Accapulco, Gro. Mexico, pp.369-376. 4. Comments on "Universal representation of flow behavior based on topoenergetic principles", The IX-th International Congress on Rheology, 8-13 October 1984, Accapulco, Gro. Mexico, pp. 369-376. 5. Open letter to BRML and INM.	F
2014	18	1	Adiabatic calorimeter as high accuracy T-calibrator	F

*) F=free, AFI=ask for invoice.

ERRATA:

VOL	NO	place	was written	must be
15	2	Figure 5	P+	P-
15	3	page 5, row 7 down-to-up	x=2	x=0.2

I encourage readers to advice me any observation.

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