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Content

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Evidence of human mental field by ac-electric conductivity in electrolyte solutions. 1. Bio-energy.

The recent series of intense studies on the effect of Human Mental Field (HMF) on water and aqueous solutions revealed specific interaction of HMF with amorphous-crystalline coupling [1-3]. This interaction occurs with other composite materials having spatially coherent distribution of components (for instance fibers and cold-rolled films [1]), steady-state flowing liquids [3]).

Studies on ac-electric conductivity of electrolyte aqueous solutions have revealed that at low frequencies (at approximately 100 Hz) and for solutions diluted at approximately half the saturated ones (0.5sat), structural differences are optimally evidenced [2].

Experimental: ac-electric conductivity in an aqueous solution of 0.5satCuSO4anh at 70.00±0.01 Hz sin signal (to avoid interference with line 50 Hz), at low voltage (Ueff = 1.968 V) (with Direct Digital Synthesis (DDS) generator model UDB 130xS), low current density (ieff≈93μA/sqmm), and at room temperature (RT: +9 to +18 ^{0}C, mentioned on the graphic always next to the date) were performed non-stop for 24 hours/day (mentioned as Hour Of the Day, HOD) for several months. Cell assembly (Figure 1) was introduced in a completed closed iron cylinder connected to ground as electric shield and all measuring assembly was placed between two grounded galvanized iron sheets. These electric shieldings were proved as not affecting the results obtained without them.

Figure 1 shows the cross section in the measuring cell assembly. The ac voltage at the cell was rectified by a High Impedance Precision Rectifier (HIPR) prior calibrated for standard Ueff values at 50 Hz and by using two supply double voltages (Figure 2). Figure 6 presents the schematic of measurement circuit and the Udc(HOD) graphic resulted for precision resistors in view to evidence the stability and the measurement errors. Udc values are stored for each 24 hours on a memory stick by using a data logger with 16 bits resolution and 1 minute sampling rate. Values are subsequently retrieved on PC in Excel under Windows®. In view to estimate an average or classical RMS value (Root Mean Square) the average values on 8 consecutive values are calculated. For proper ac-electric conductivity measurements on electrolyte solution, the resistor R is replaced by the measuring cell at the same parameters. The values of resistors have the same order of magnitude as for electrolyte solutions at 100 Hz and the same measuring cell as in the prior measurements [2].

The basic idea as proposed objective of these measurements consists in evidencing a clear correlation between variation of Udc and modifications observed on HMF and other phenomena observed around the measuring assembly as it was established in previous studies [1-3].

Structural aspects: Figure 3 resumes the calorimetric melting endotherms obtained for successively diluted solutions of CuSO4 where a spectrum of amorphous-crystalline couplings is evidenced even for pure water component (the major endotherm). Figure 4 schematically presents the 3D structure of electrolyte solution in an initial stage (A) and after a long time submitted to ac-electric conductivity at low frequency were a coherent and stable structure is reached and oriented along the applied electric field (B). Structure A has a greater ac-electric conductance (lower Udc) than structure B where 3D structure is more dense with higher impedance and Udc. In the case of HMF and/or other phenomena interact with conducting 3D structure Udc must show specific variations.

It is important to mention the Morisson's (CERN) observation on regionalization of cold fusion experiments performed also in electrolyte aqueous solutions [5]. According to these results his observation can be explained just by specific effect of local such interactions on reacting systems.

Figure 5 shows the structural detail of amorphous-crystalline coupling initially established for polyethylenes [7], subsequently established for water and aqueous solutions [4, 6] and furthermore detected at a large variety of coherent composite materials.

The first series of experiments (Figures 7-14) were performed in view to establish the exact repeatable conditions. Some parasite effects like mechanical vibrations/sounds where diminished by immersing the cell in a jar with water (Figure 1).

Observations are mentioned on each graphic in view to be correlated with the resulted Udc(HOD).

Note 1: No other person excepting me was in the vicinity of measuring assembly closer than 20 m and my presence even next to it has no visible effect on measurements.

Note 2: The initial/fresh electrolyte solution needs a period of "adaptation" up to a structure and steady-state regime of measurement. After each interruption of experiments (for instance caused by electric breakdown and/or sometimes by accidental signal of 10 kHz), even the old solution needs such accommodation stage for at least 24 hours. All further graphics are performed on the same solution and results systematic difference between night when people are in relaxed state of their mind at their homes so Udc progressively increases and day when people gather in crowds on the street, in transit, in public places and the resulted HMF is specific high and Udc decreases.
Note 3: My house where the experiments were performed, is located at approximately 100 m from an important road (Turda Street) connecting several big districts in Bucharest (capital of Romania). The commuter transit on this road by cars and trams has specific levels depending on HOD, weather and/or holydays. These parameters are driving also the HMF of the commuter crowds and its effect on ac-electric measurements.
Note 4: The effect of weather on HMF, for instance in the working days when temperature suddenly decreases the traffic and crowds are considerably diminished. On several graphics vertical lines are drawn marking crowds formed and observed directly by me on the road and in a closest tram stop.
Note 5: Each vegetation burst specific to springtime has a powerful relaxing effect on Udc. The most evident such phenomena I observed were in the morning of 16^{th}, 19^{th}, 26^{th} and 27^{th} April when in approximately 3 hours appeared and grew up leafs and flowers at different stages of development in majority trees and bushes (Figures 59, 62, 69, 70). Vegetation starts in the morning when sun light is on appearing every day since 26^{th} April and is counteracted later by HMF. Vegetation and HMF of human crowds involve the same form/nature of energy interfering each other and both with electrolyte solution. We may call it as bio-energy, but having opposite polarity, namely with structuring and de-structuring effect on electrolyte aqueous solution, respectively.
Note 6: Warm and short rain/shower with lightenings and thunders has a relaxing effect on HMF and subsequently on Udc (Figure 61), while long term rains with great decrease of temperature (Figures 39-41, 49) have a blocking effect on HMF. In both cases Udc increases, but in specific ways, namely as a short burst and with a small slope, almost constant Udc value, respectively. These facts are in someway similar with induction effect observed by removing a ferromagnetic core with different speed in an electric coil.
Note 7: HMF as main contributor in Udc variations, has a clear cyclic variation with a period of 24 hours typically consisting in the first stage over night by a relaxation process (Udc monotonously increases) and during the day (working day) as the result of active minds of a population crowd for which Udc decreases usually in steps whose amplitude and time (HOD) depending on the population size and their mind activity. If the human community around the measuring system is approximated as closed, i.e. same people all time during measurements, it is important to evidence the level of HMF relaxation and activity on long term. It is important to compare the Udc values at 0 and 24 HOD by their difference Udc(24) – Udc(0): > 0, HMF was relaxed, = 0 is unchanged and < 0 HMF gained a mental stress during that day. These measurements evidence stress management in human communities as driving potential for their health state/morbidity and social stability.

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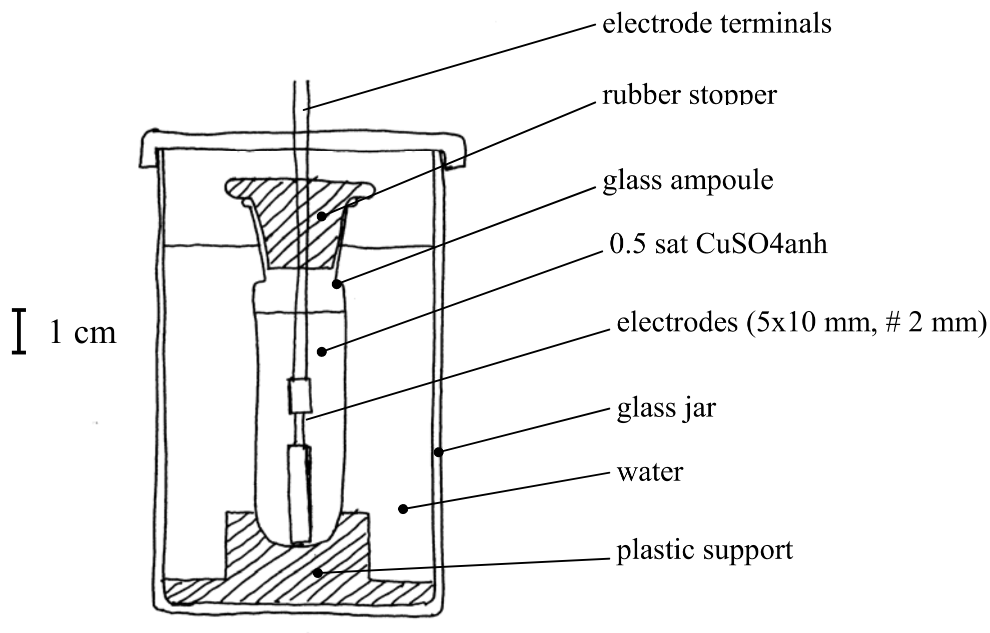

Figure 1. Cross section of ac-conductivity measuring cell assembly.

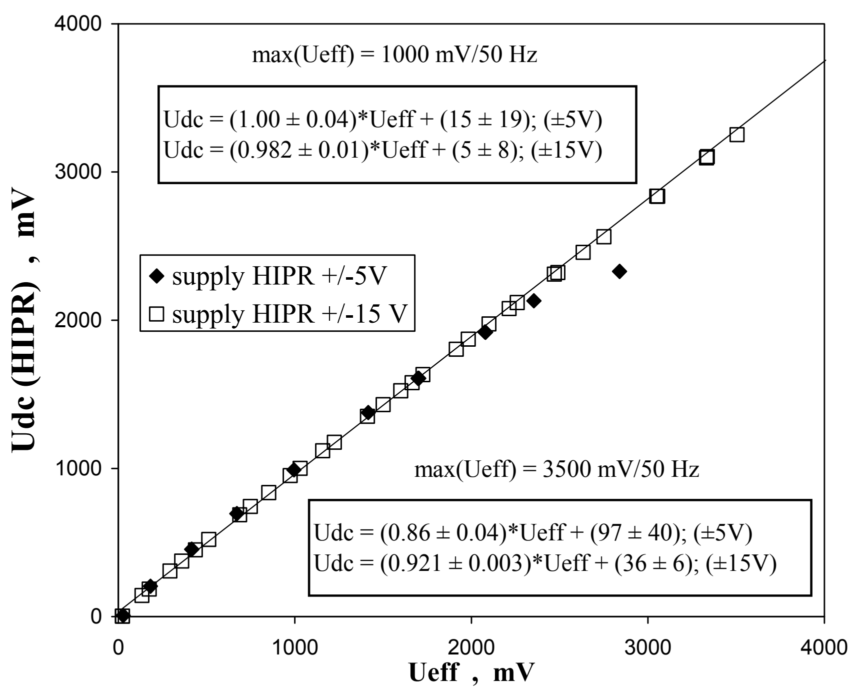

Figure 2. HIPR calibration.

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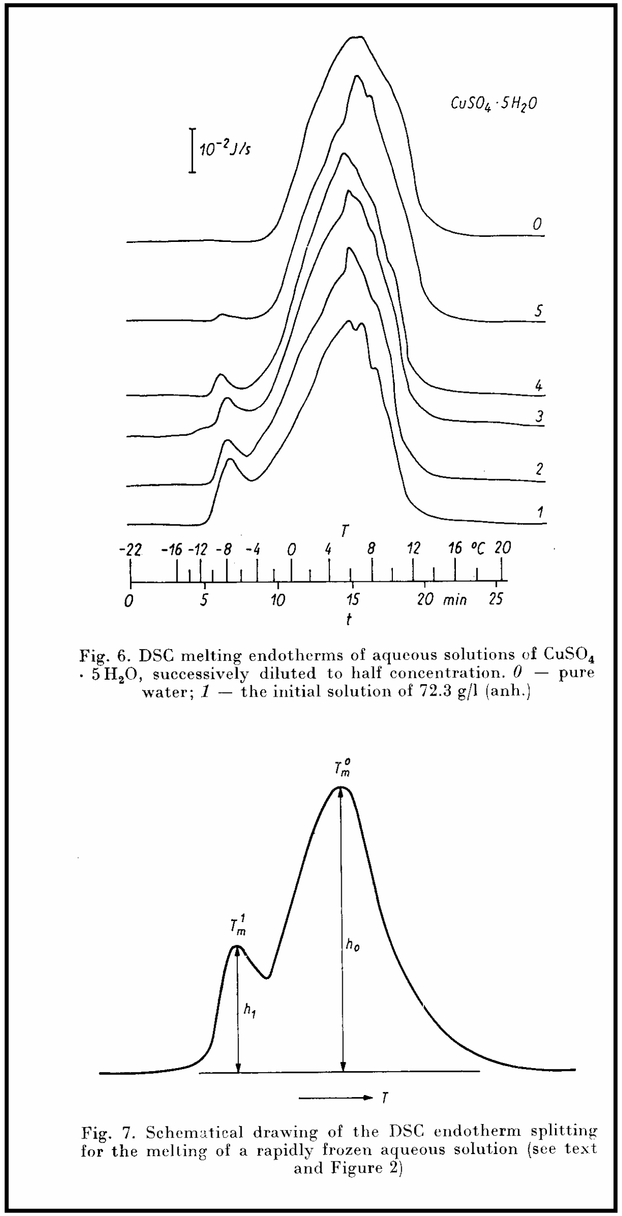


Figure 3. DSC multimelting of CuSO4 solutions evidencing spectrum of amorphous-crystalline couplings (figures reproduced from ref. [4]).

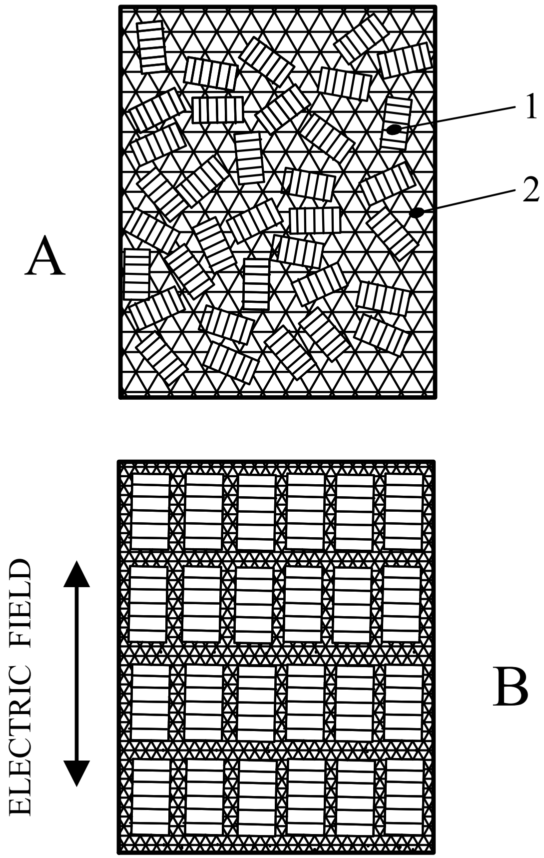


Figure 4. Schematic representation of electrolyte solution structure. A: initial structure; 1—crystalline domains; 2—amorphous phase; B: structure after a long treatment under ac electric field without any other perturbations (for instance: HMF, mechanical vibrations, etc.).

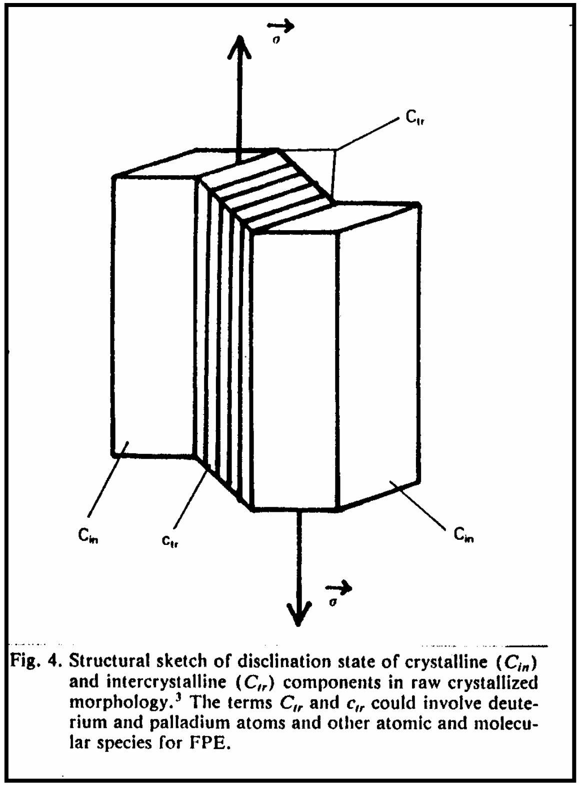
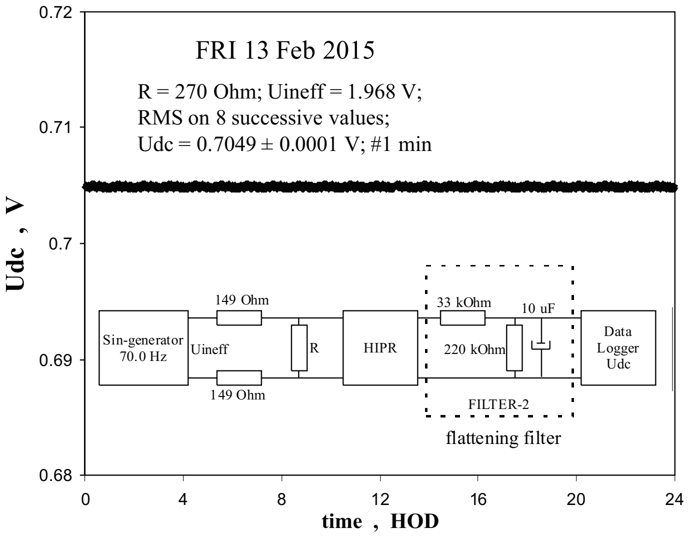


Figure 5. Schematic structure of water crystalline domains composed by pure crystalline phases (Cin) and local amorphous (intercrystalline) domains (Ctr). (reproduced from ref. [4, 6]).



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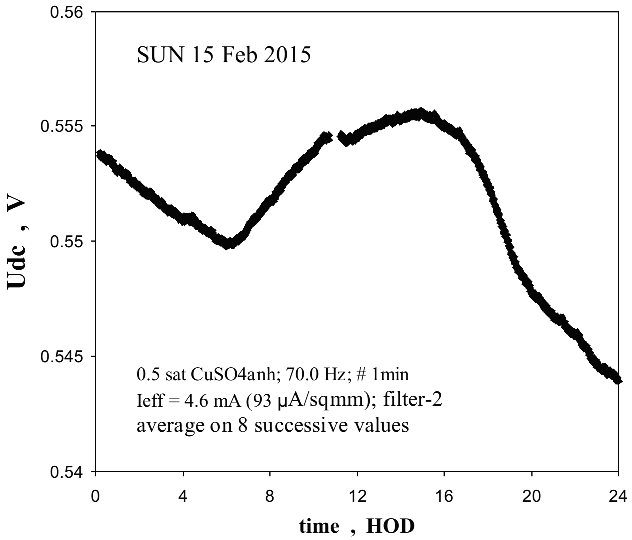

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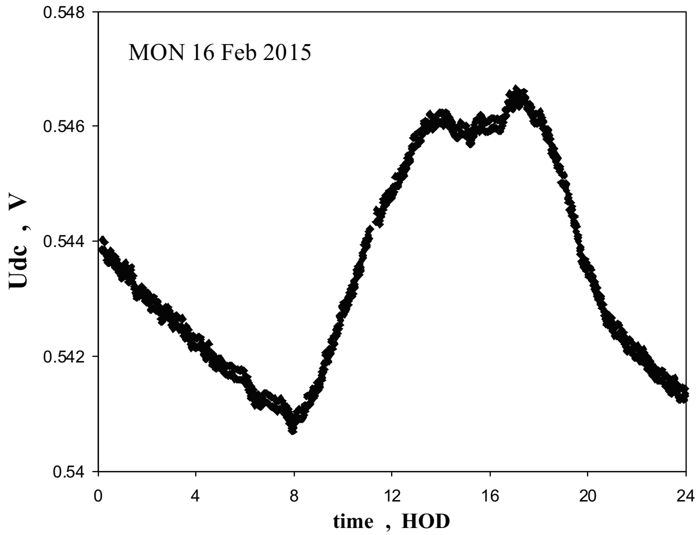

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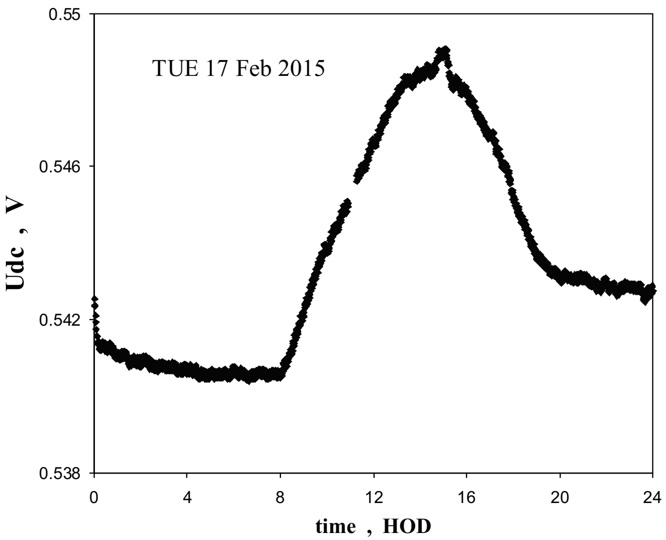

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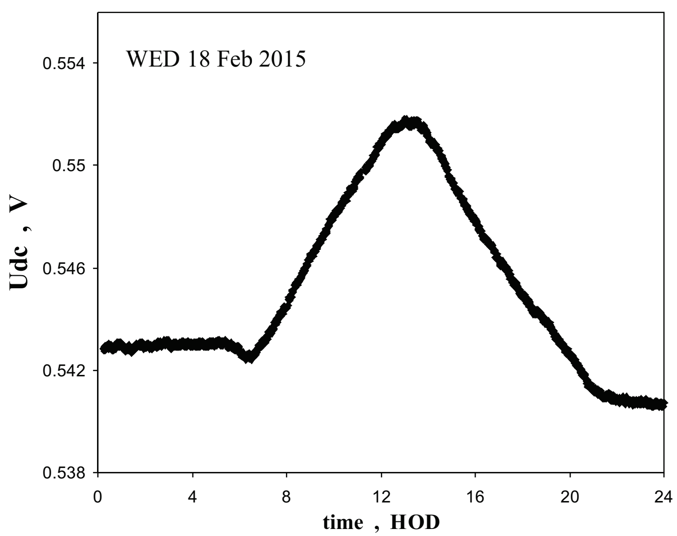

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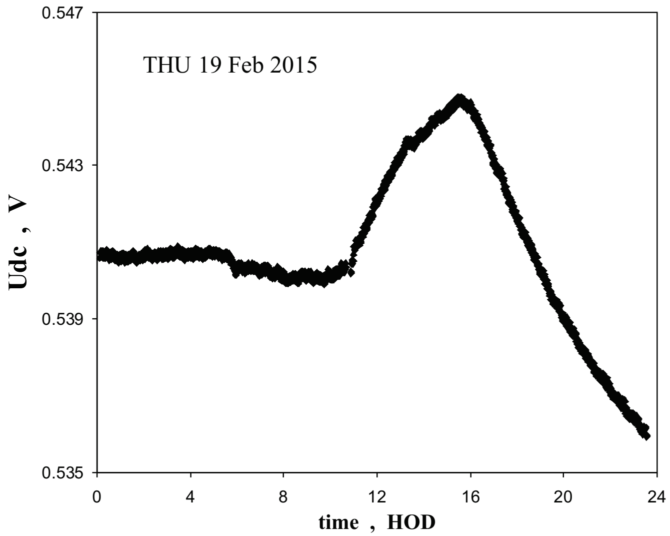

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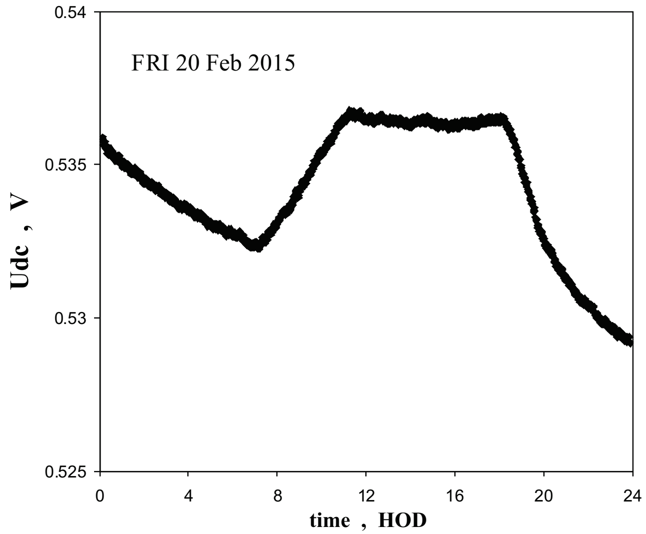

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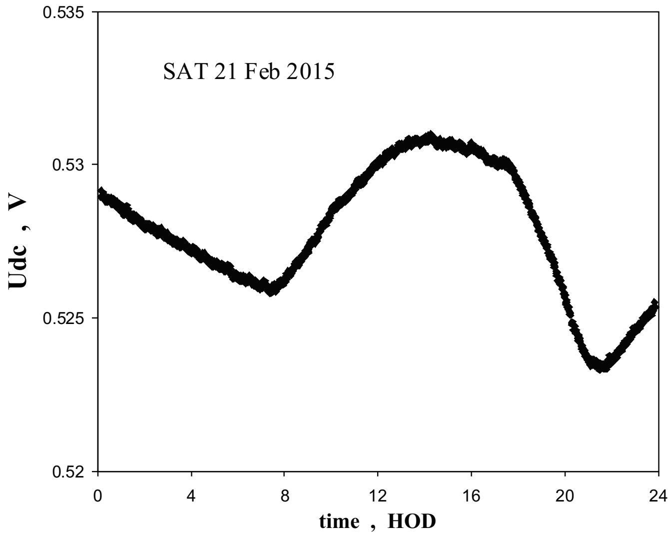

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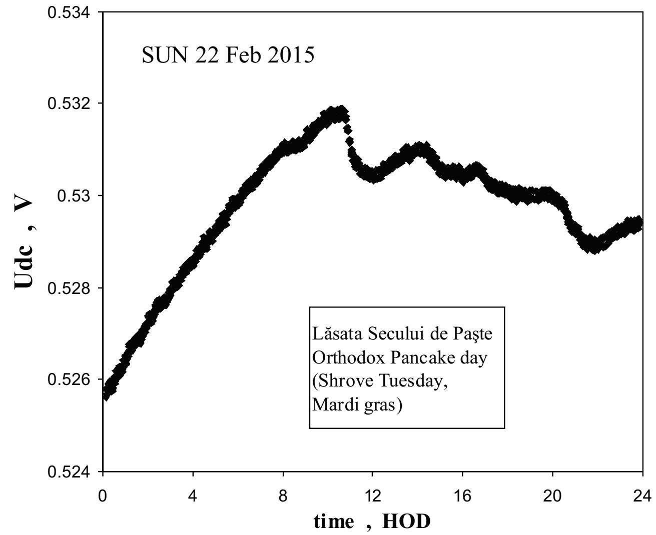

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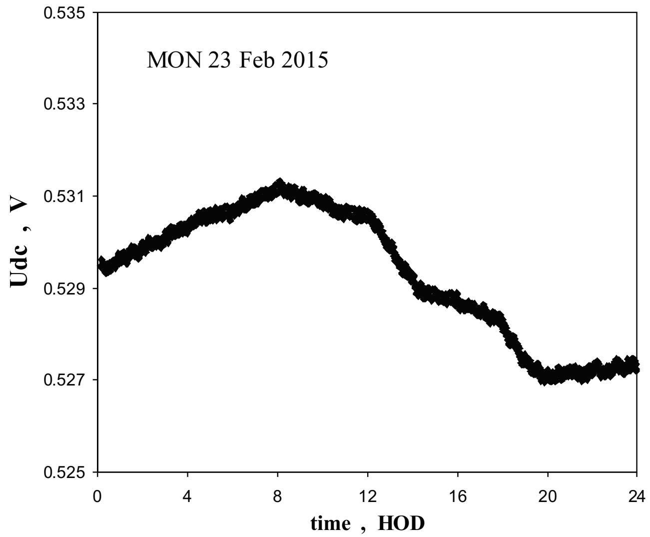

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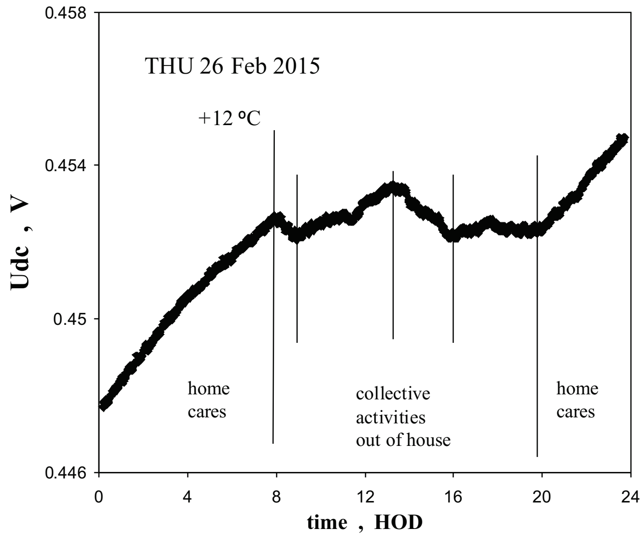

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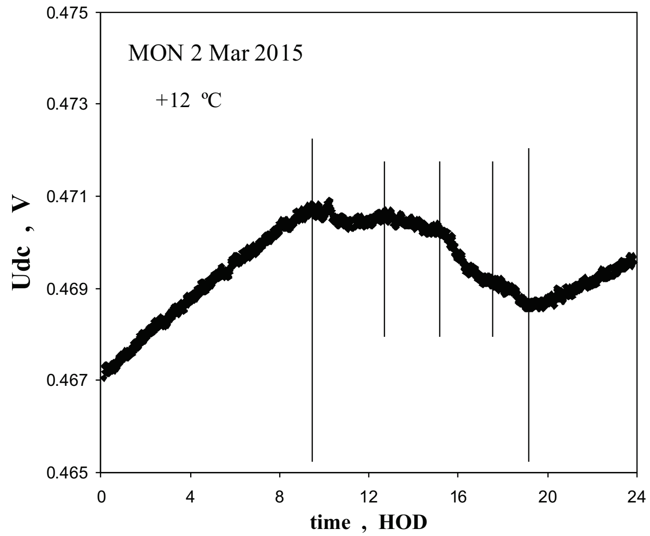

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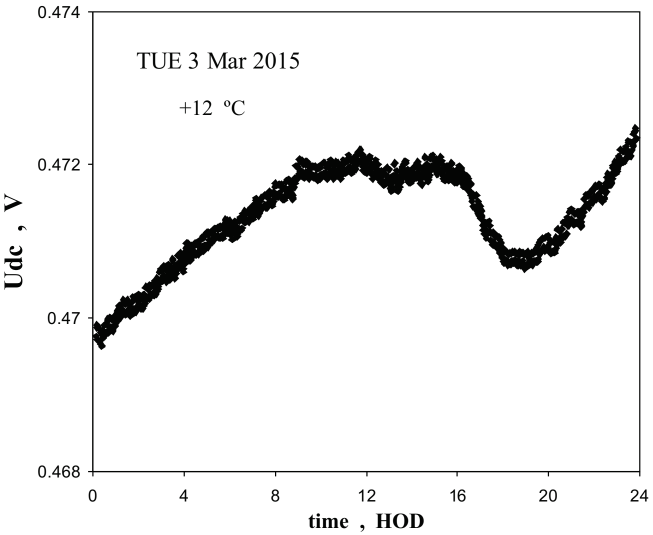

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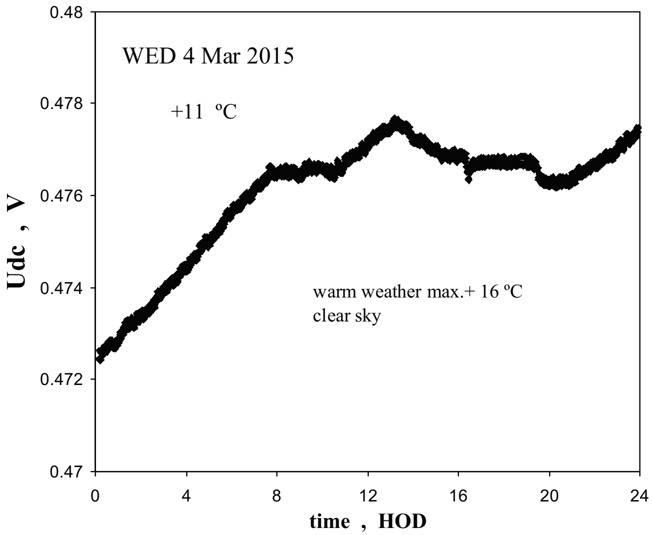

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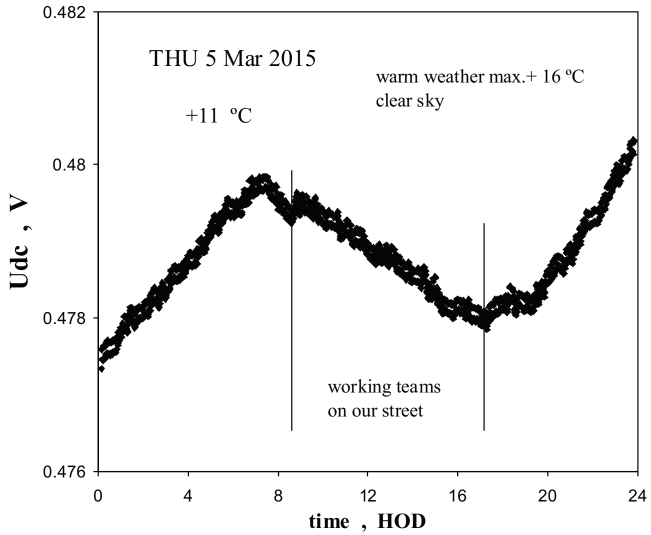

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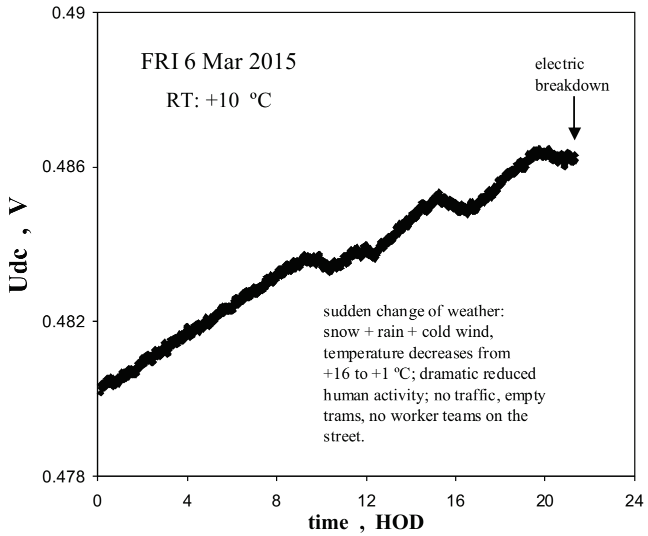

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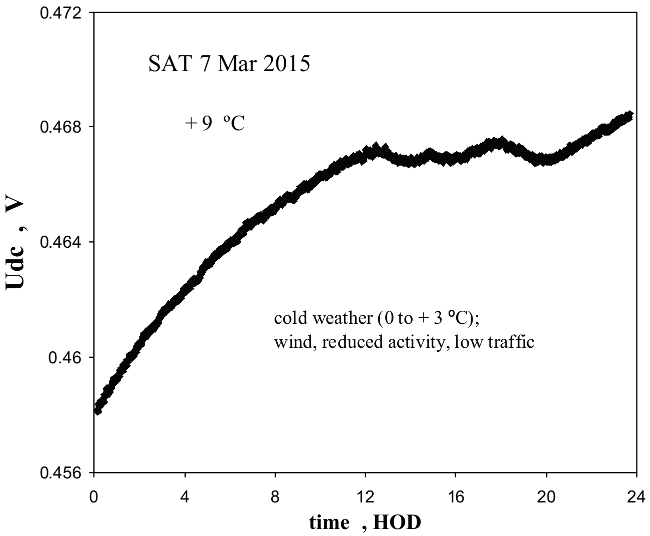

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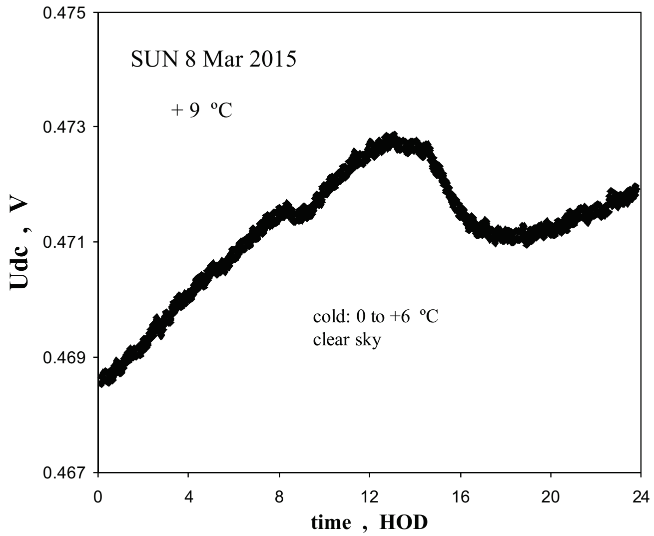

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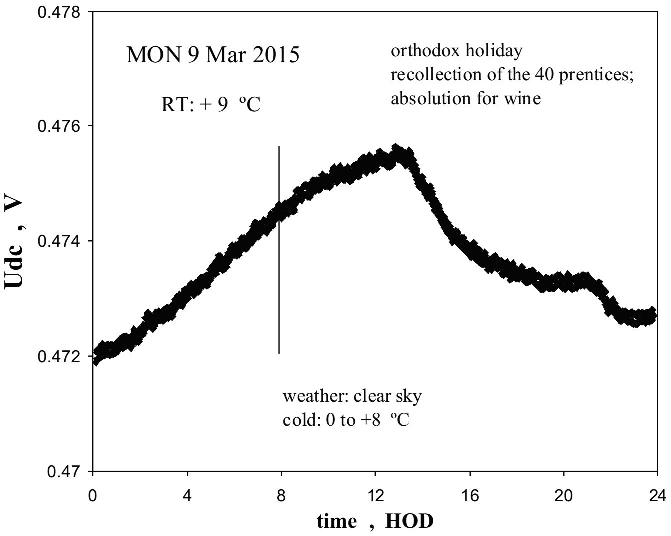

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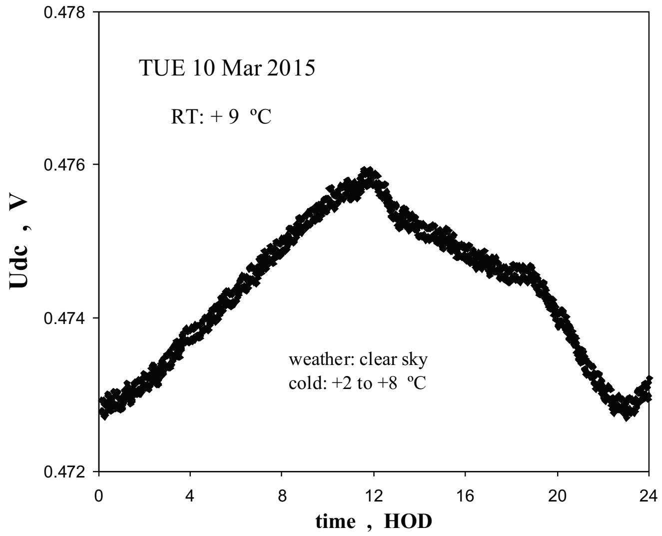

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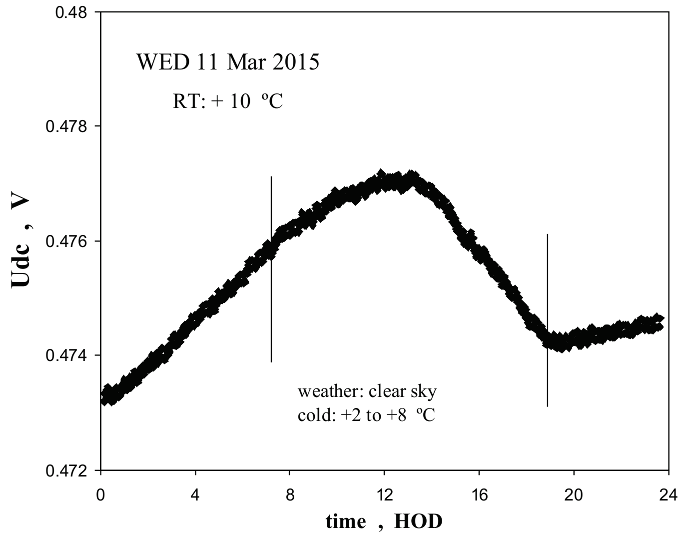

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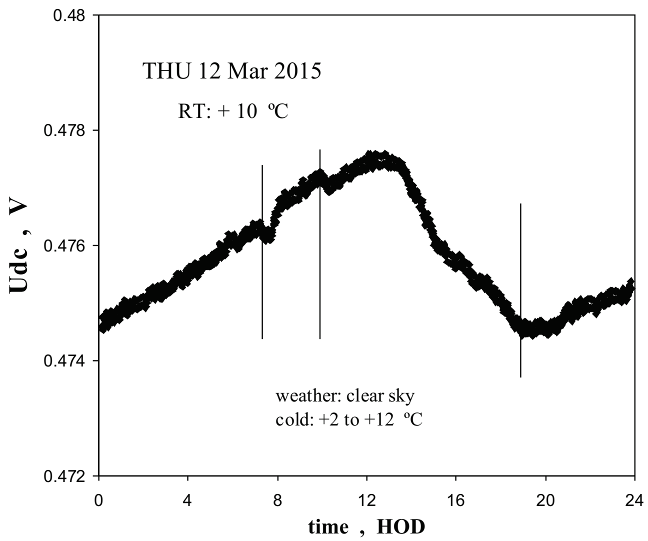

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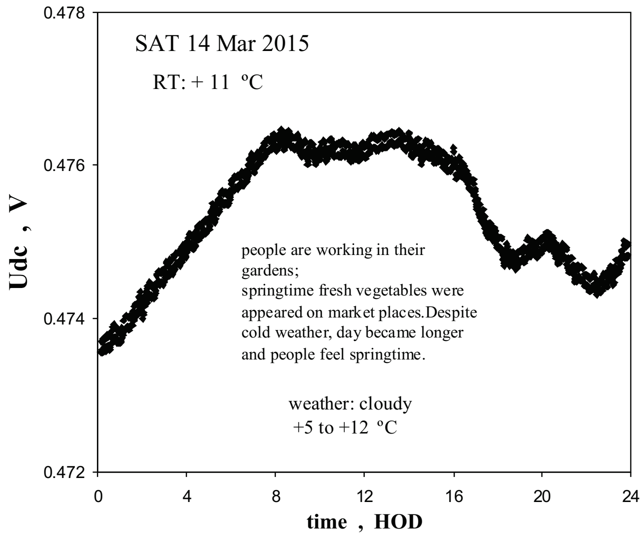

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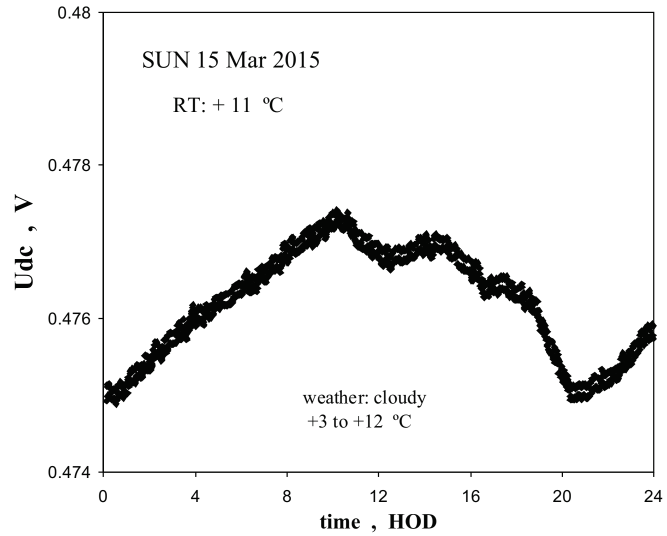

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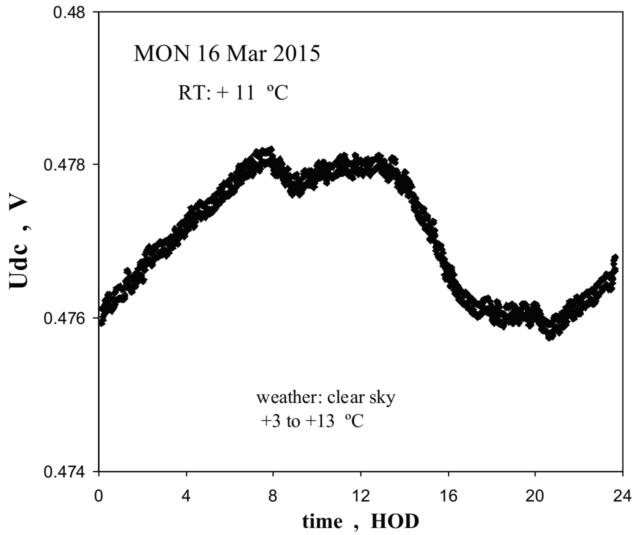

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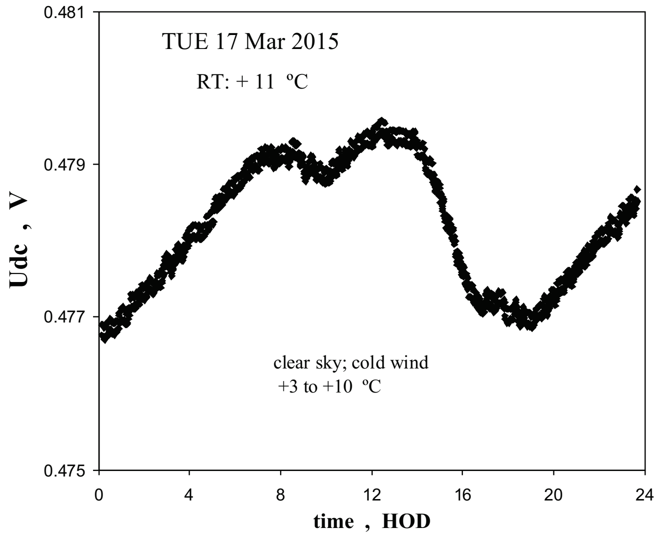

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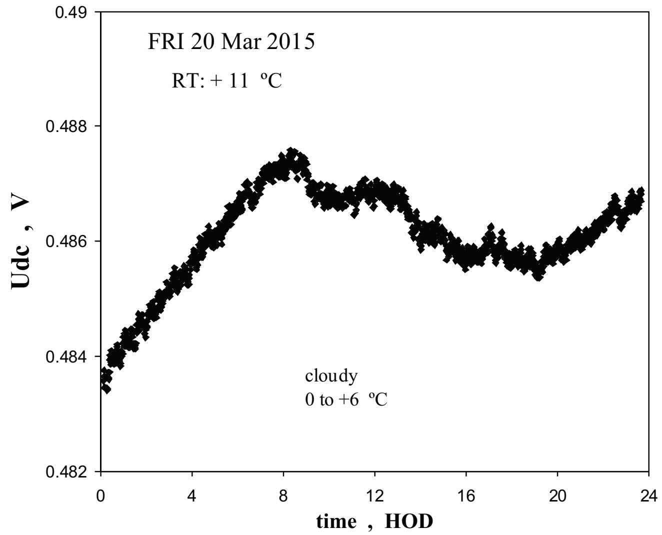

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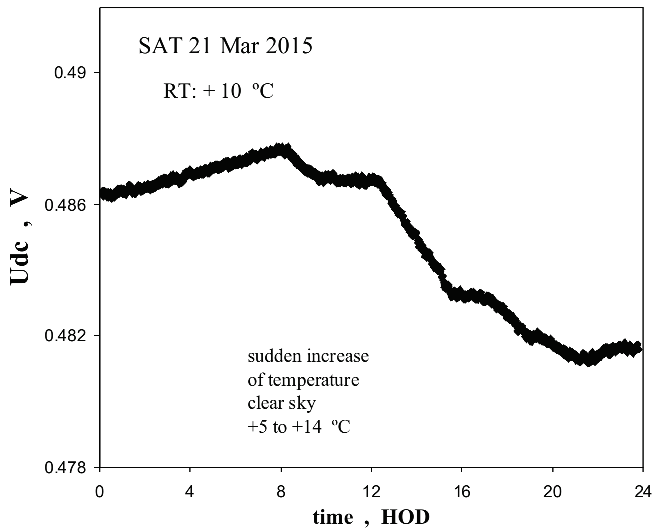

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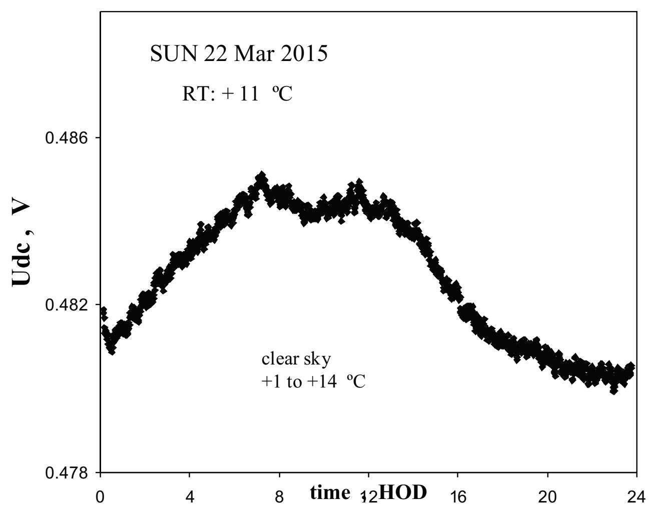

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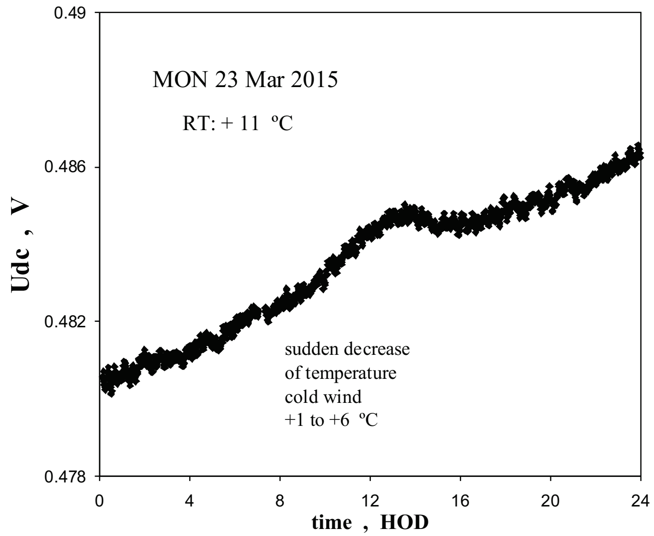

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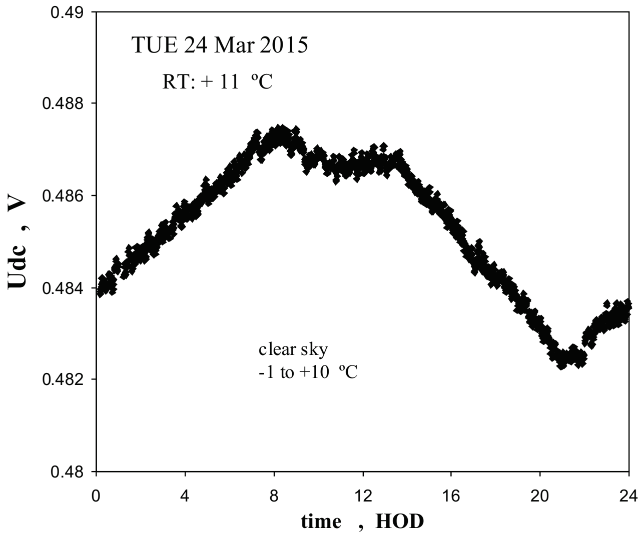

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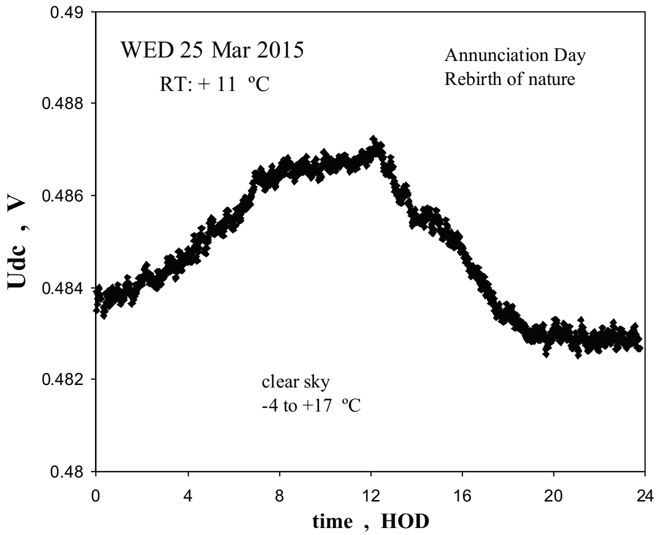

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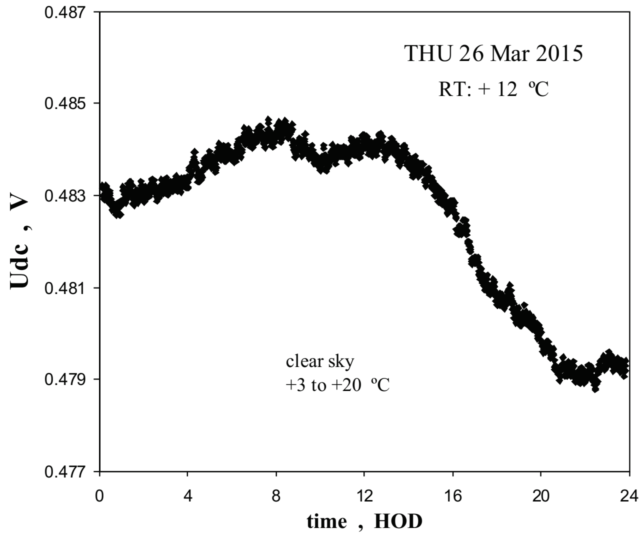

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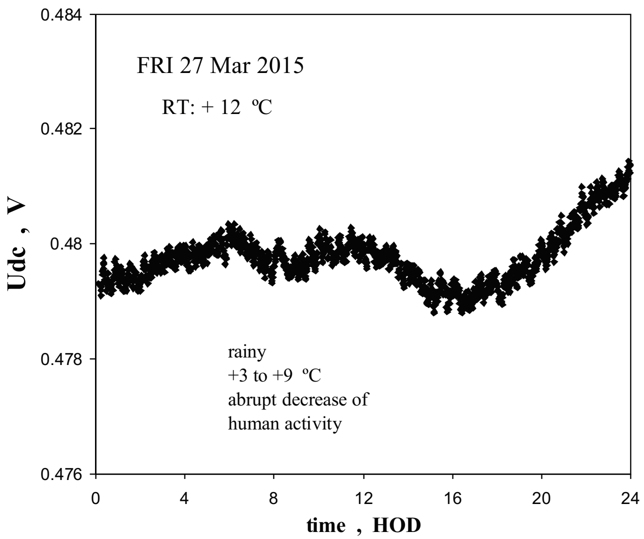

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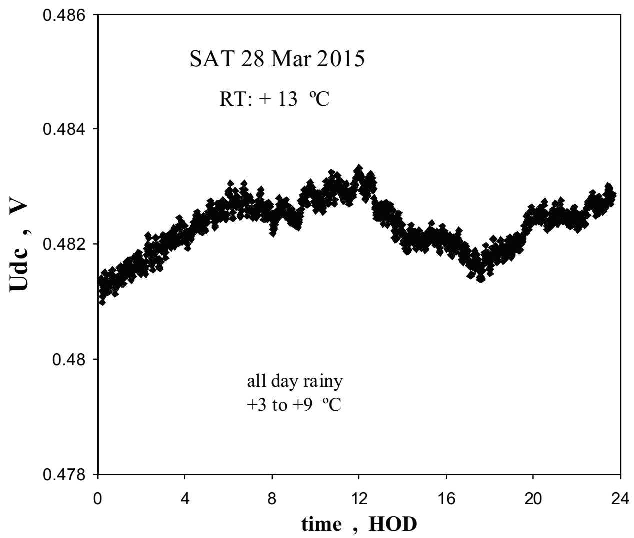

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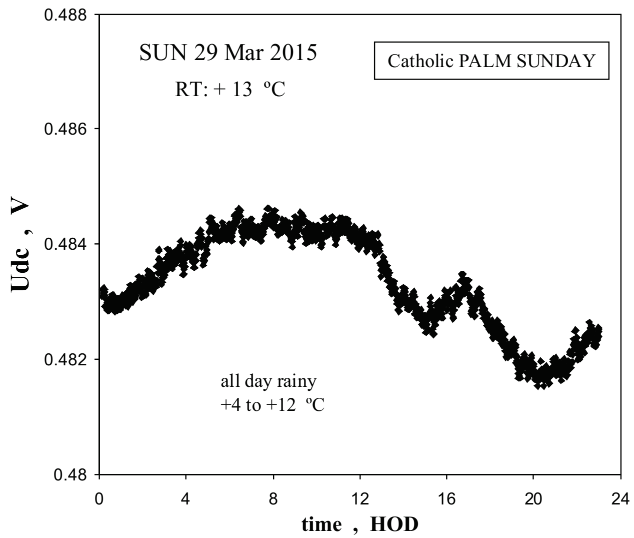

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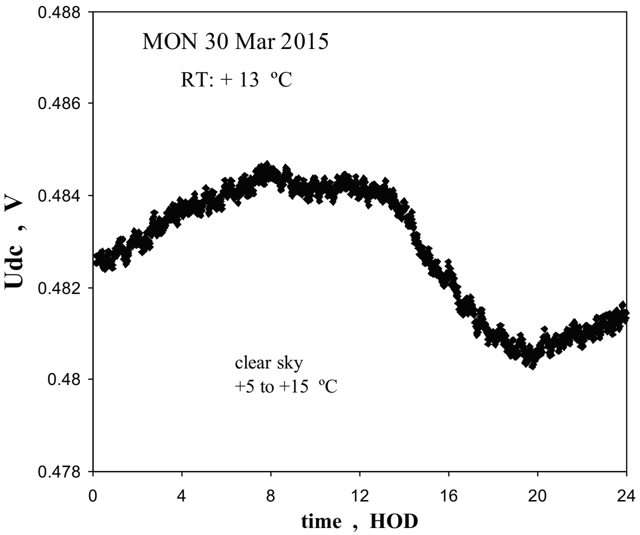

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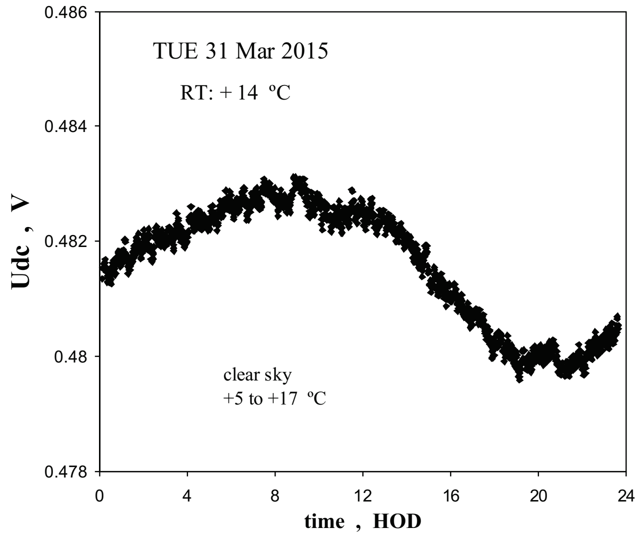

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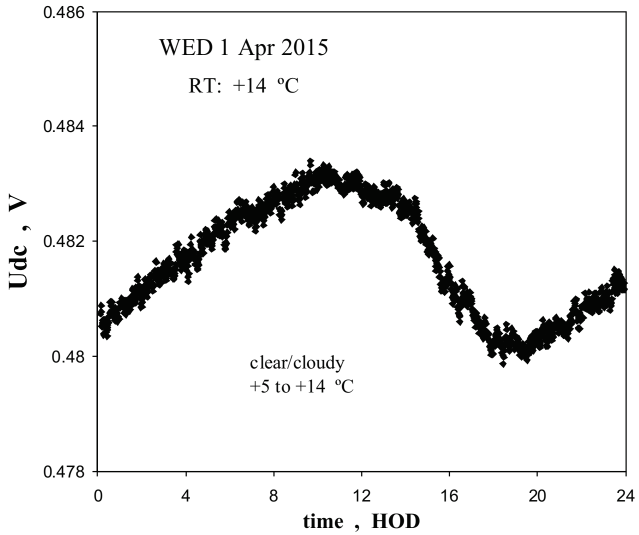

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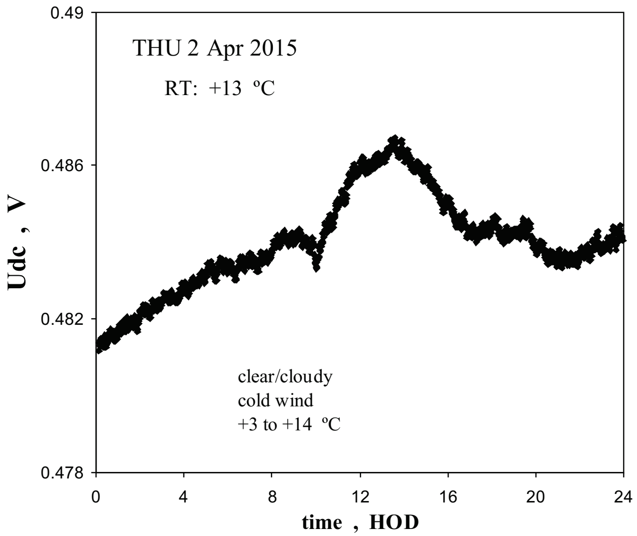

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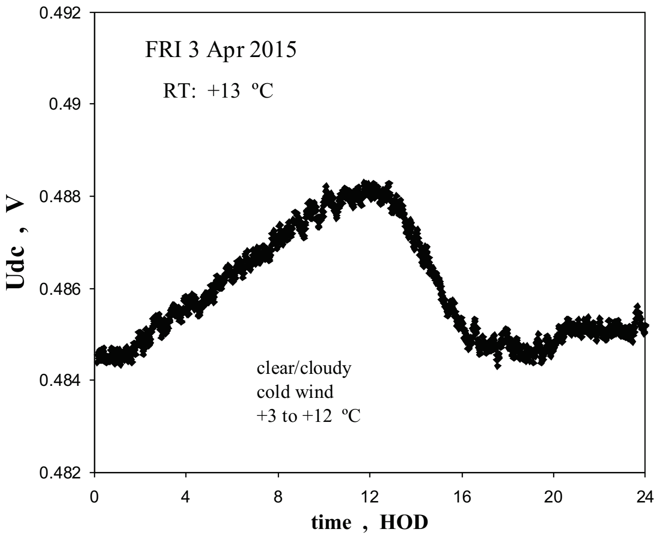

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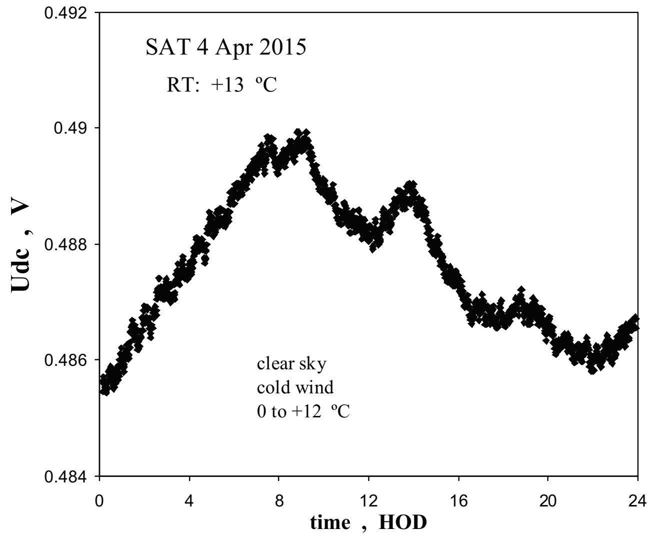

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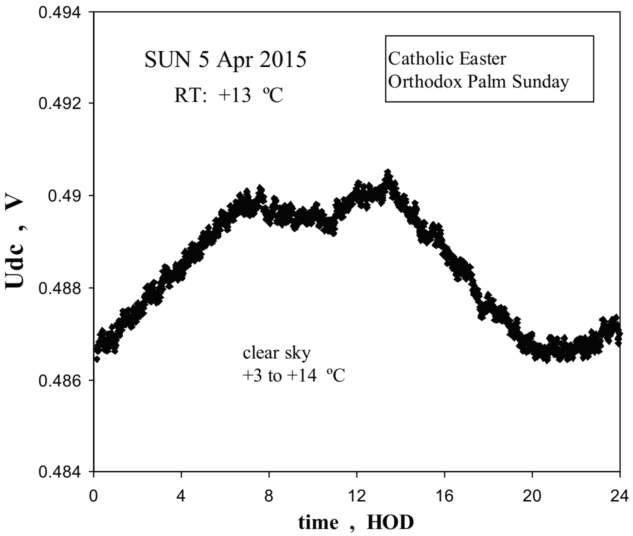

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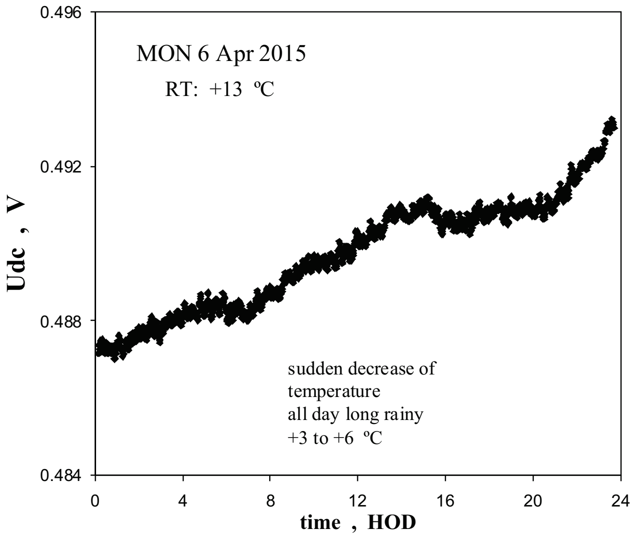

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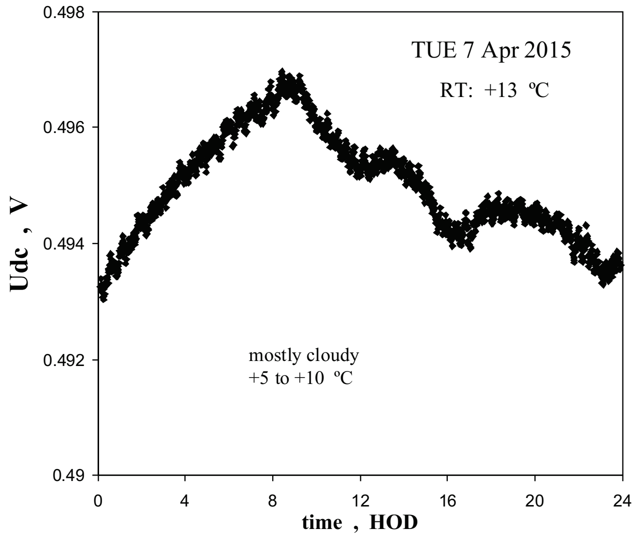
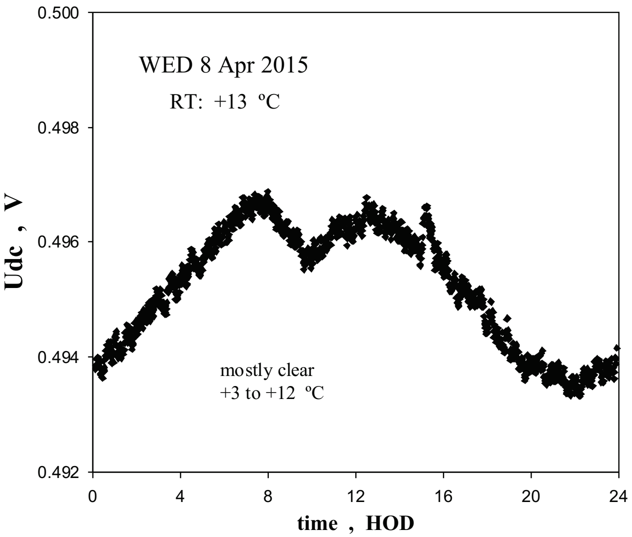


Figure 50.

Orthodox Holy Week



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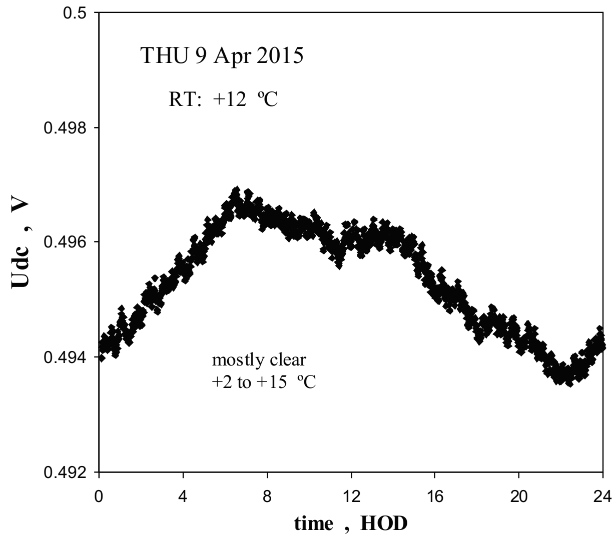
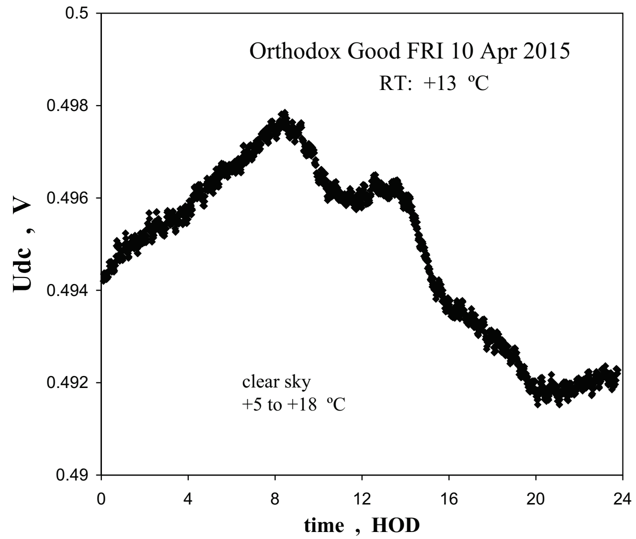


Figure 52.



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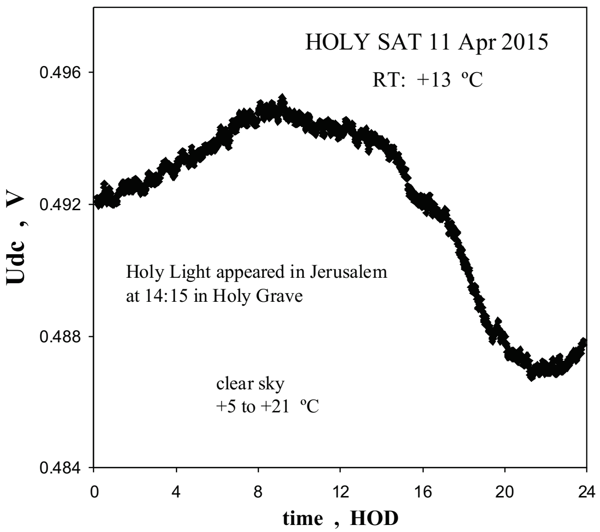

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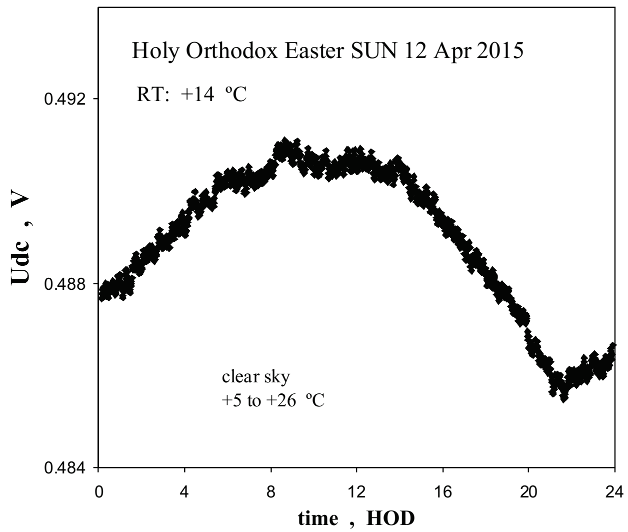

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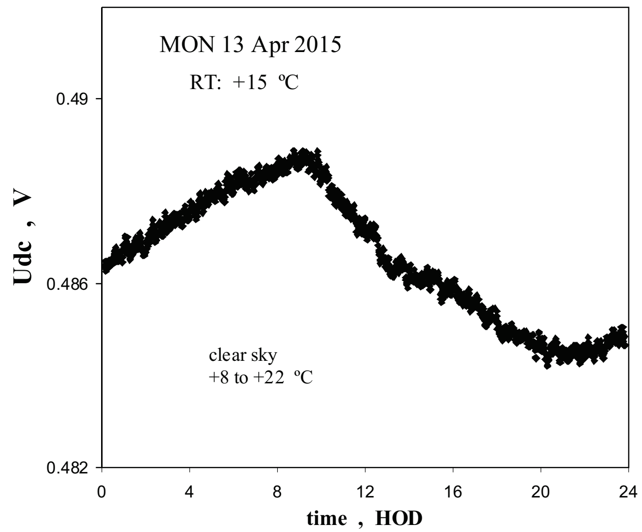

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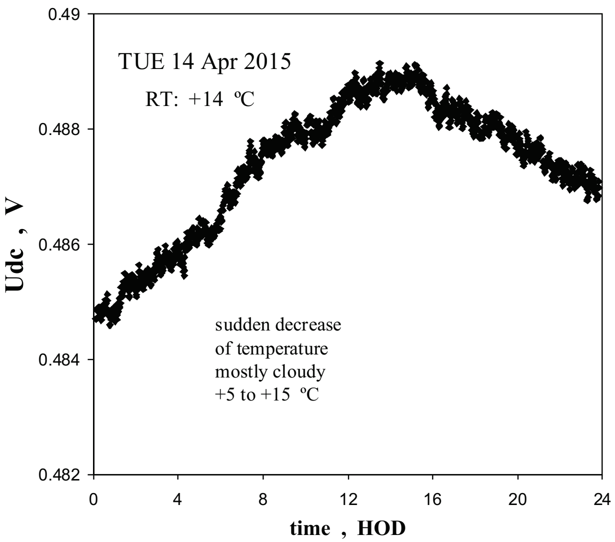

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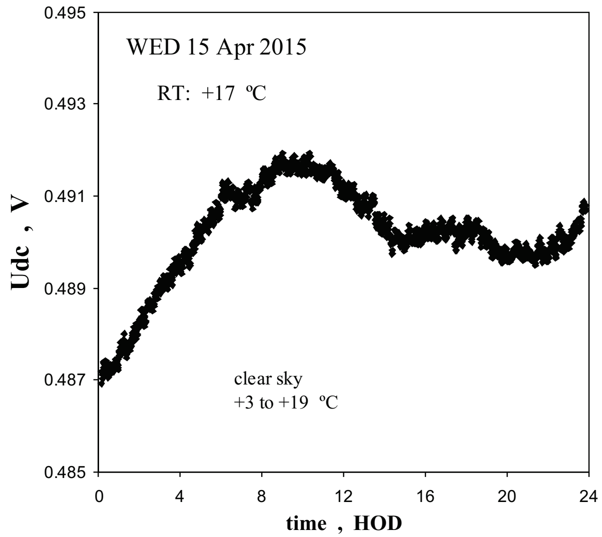

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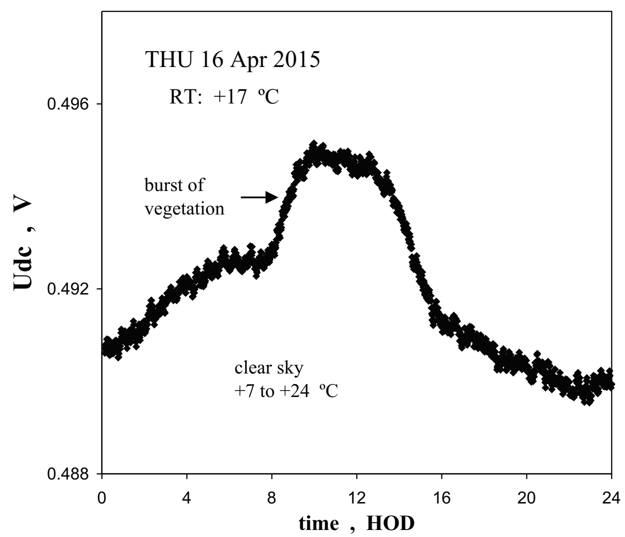

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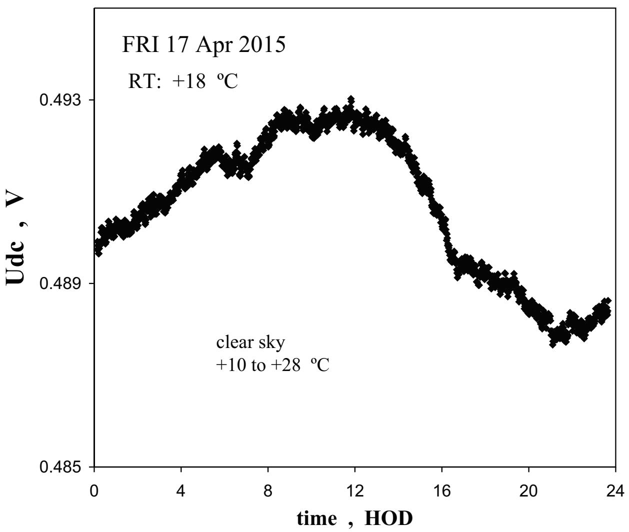

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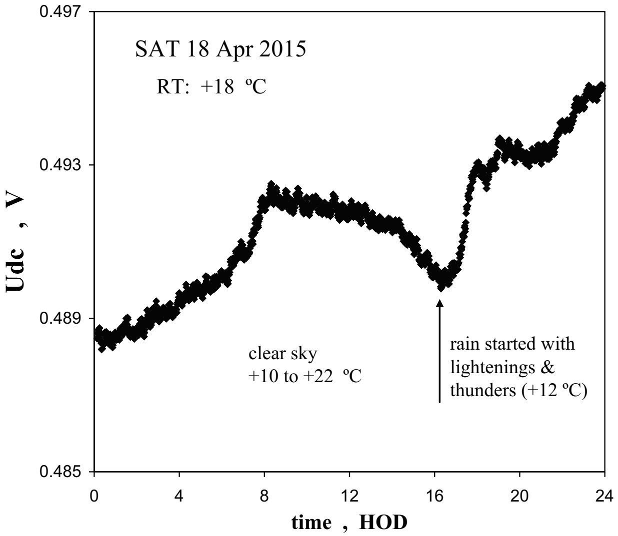

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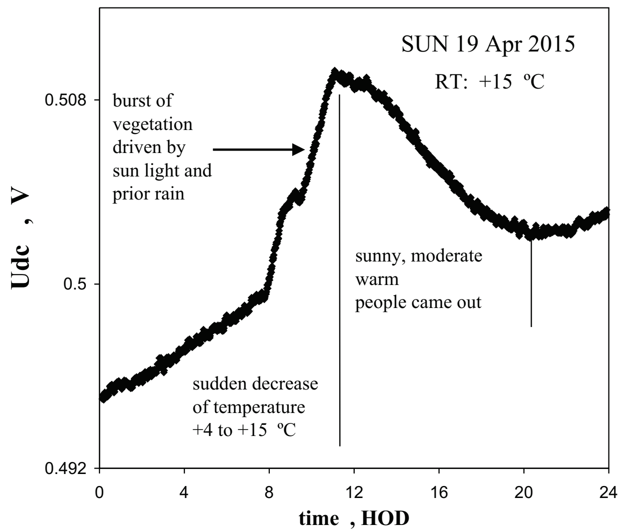

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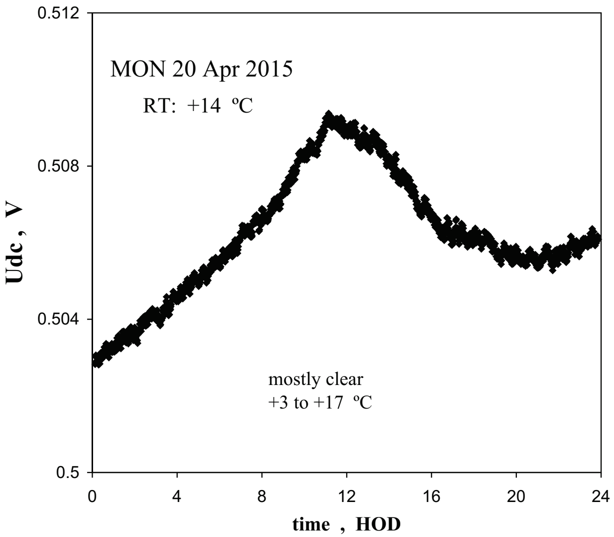

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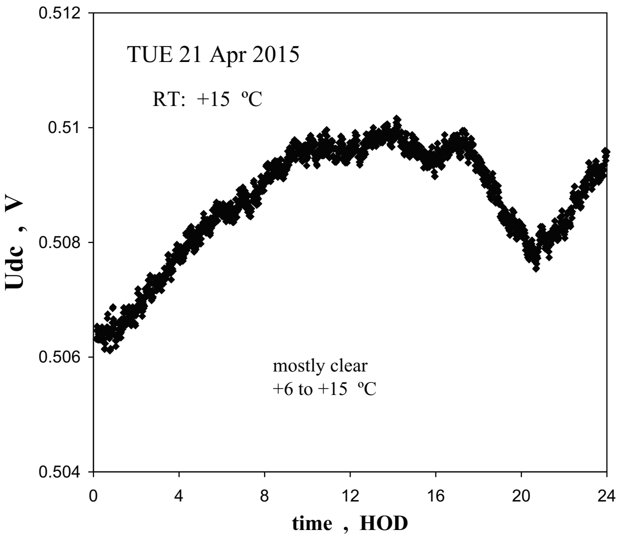

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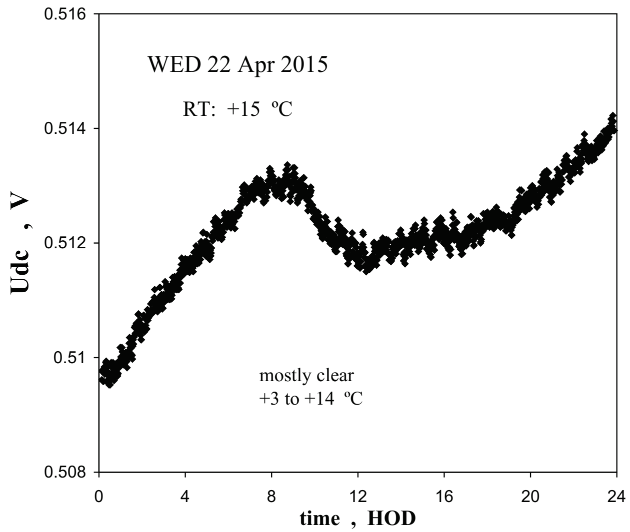

Figure 65.

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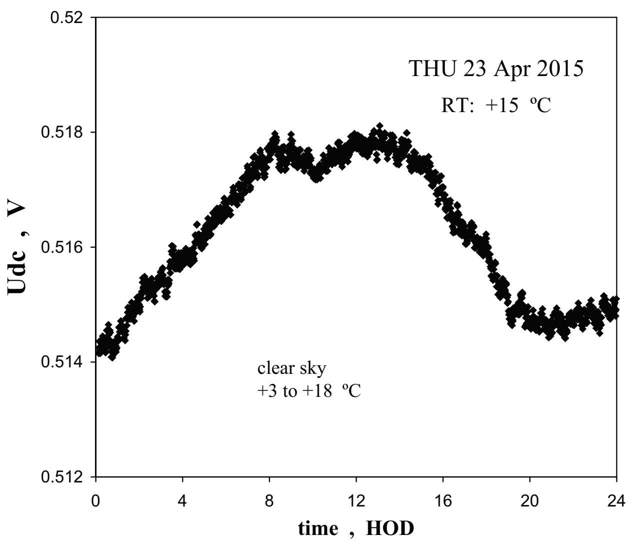

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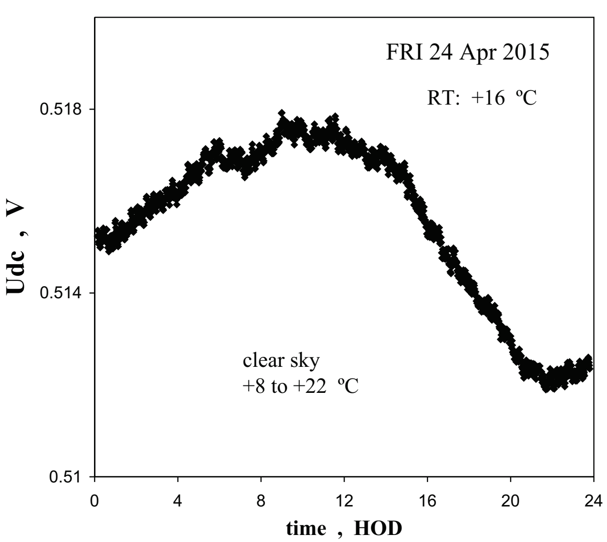

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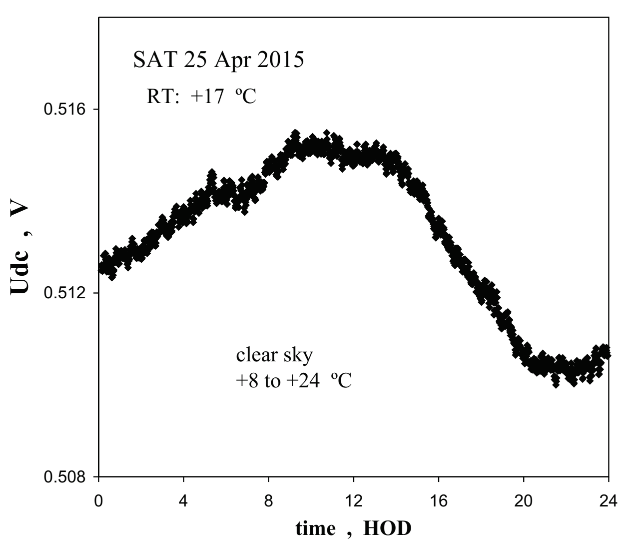

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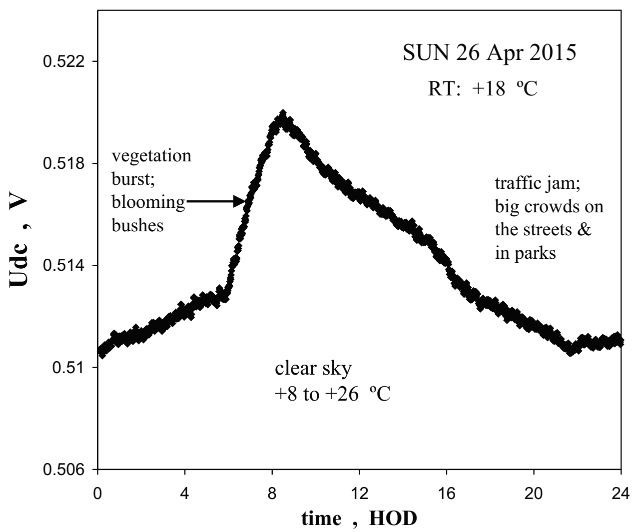

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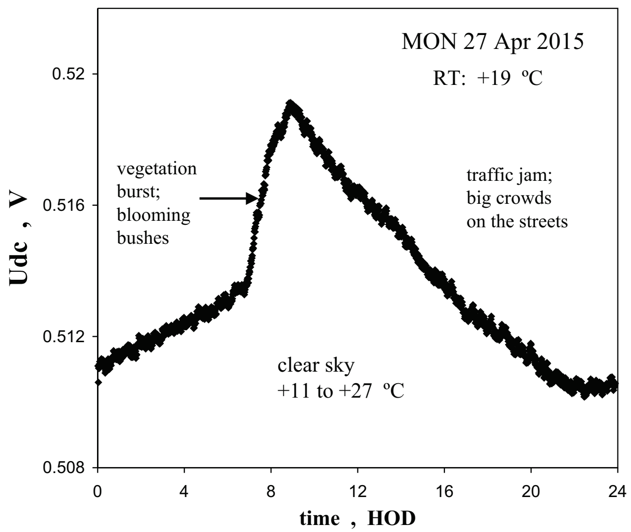

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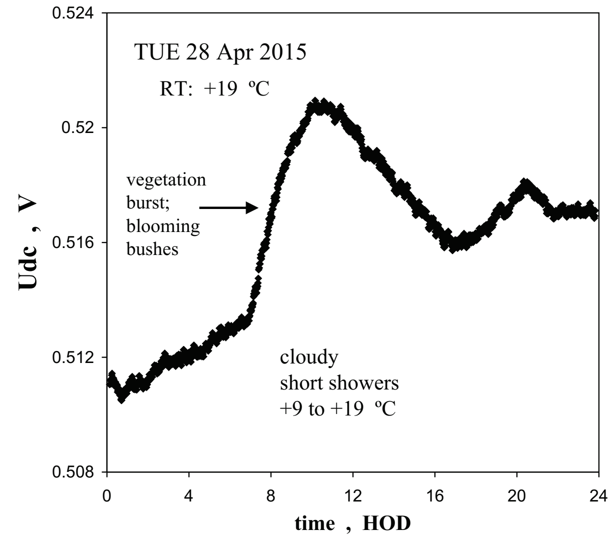

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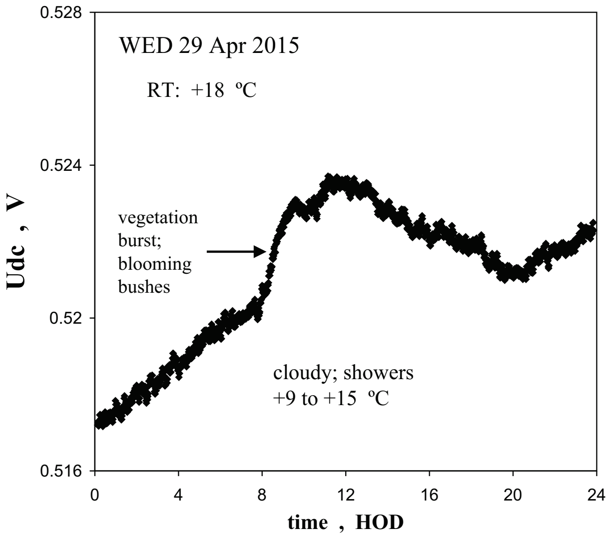

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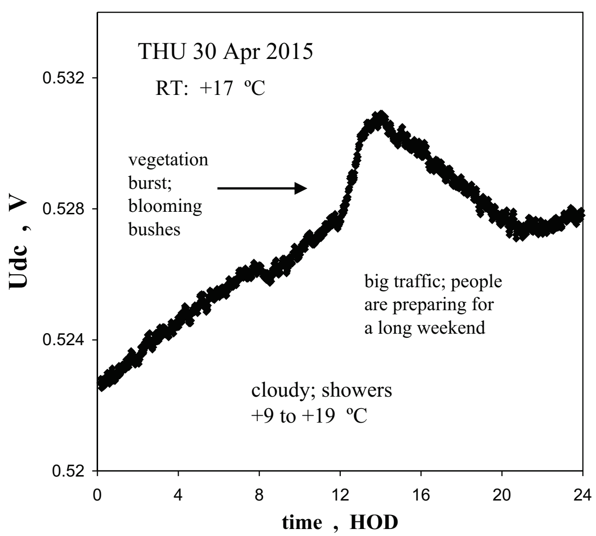

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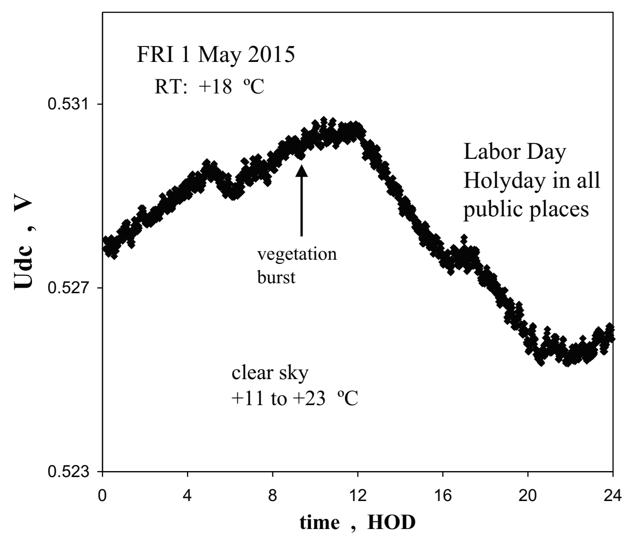

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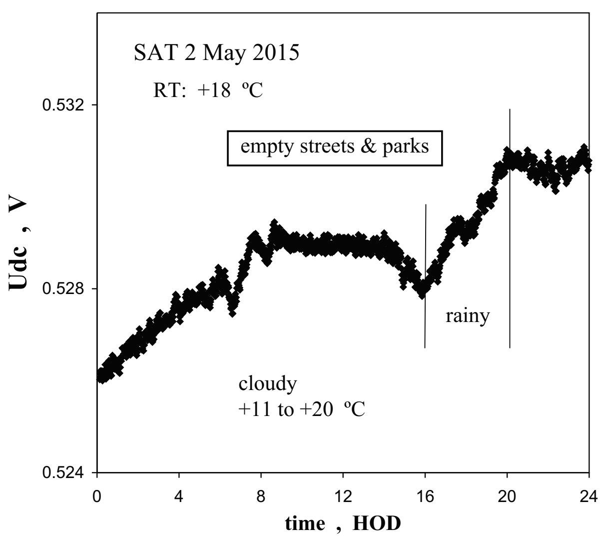
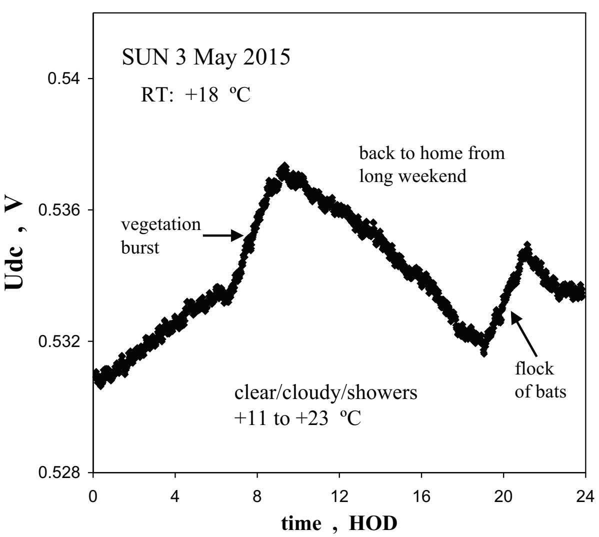


Figure 75.



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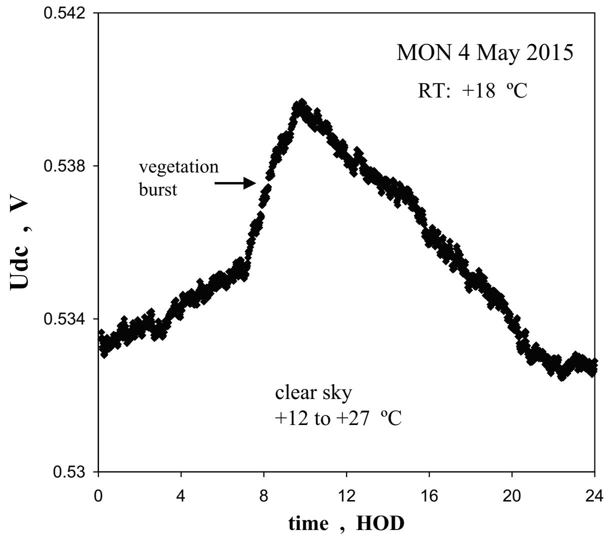

Figure 77.

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Last name	DRAGAN
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publications	● >100 scientific papers ● >70 scientific communications ● 17 patents ● 5 books
Address:	See contact details on website: www.gdfdatabanks.ro gdf.dragan@gmail.com

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	F

			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)	
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
2010	14	1	Studies on cement hydration by High Resolution Mixing Calorimetry (HRMC).	F
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
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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 şi starea de sănătate.	F
2013	17	1	DTA study of water freezing. IV. New facts on energy circuits.	F
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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
2014	18	2	Mental field-water interaction as evidenced by Isothermal Convection Flow Calorimetry (ICFC). II. Effect of convection flow power.	F
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2014	18	4	The 38th Congress of American-Romanian Academy (ARA) of Arts and Sciences, 23-27 July 2014, Pasadena, California, USA	F
2015	19	1	Gold versus money. 1. An overview on main financial figures of world countries.	F
2015	19	2	Gold versus money. 2. Rich, middle and poor countries.	F
2015	19	3	High Resolution Mixing Calorimetry (HRMC) redivivus. 1. General presentation and heat capacity measurements.	F
2015	19	4	High Resolution Mixing Calorimetry (HRMC) redivivus. 2. Structure developing of aqueous solutions by mixing experiments.	F
2015	19	5	High Resolution Mixing Calorimetry (HRMC) redivivus. 3. Calibration	F

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

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15	2	Figure 5	P+	P-
15	3	page 5, row 7 down-to-up	x=2	x=0.2

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