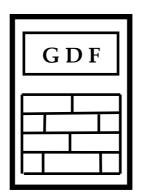
# GDF DATA BANKS BULLETIN



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# Interaction of quartz crystals with BF.

# IV. Rough estimation of reproducibility.

New vision on material science opens a new era in the knowledge of Life.

After preliminary experiments [1], more and more accurate and reproducible results on daily Udc variations for pairs of commercial quartz resonators were obtained [2, 3]. The shape of these variations has the same pattern for all selected crystal specimens consisting in three main stages in connection with structural changes caused by the activity of Human Mental Field (HMF) and other Bio-Fields (BF) associated especially to flora and fauna as it has been also evidenced in the previous experiments on water and aqueous solutions [4-6]. In the next works these stages will be analyzed in more details both by their opposite effects on structures under test (in the present case – quartz crystals) and different Hour Of the Day (HOD) when they are active.

In the present note a closer look on the variation of Udc(HOD) over 24 hours previously defined as Mm [3] is taken for pairs of selection of commercial quartz resonators initially denoted as: Q2MHz, Q4MHz, Qws and Qwm [1]. Several different pieces (between 4-6) for each crystal type belonging to the same production batch were tested at different amplifier channels in view to evidence reproducibility of results. The measuring assembly was the same as it was described in the previous notes with A=1000 [2, 3] by using simultaneously all 8 channels.

Figure 1 shows the correlations of Mm values obtained on different 2Q2MHz crystal pairs, different measuring channels and two different calendar periods. This type of crystals resulted to be the most reproducible and accurate.

Figure 2 shows the correlations of Mm values obtained on different 2Q2MHz crystal pairs, different measuring channels and two different calendar periods with Mm values for different 2Q4MHz pairs always in channel 4. It is remarkable the linear correlation and dispersion in respect to the calendar period corresponding to different extent of activity specific to HMF and BF, respectively. These differences will be analyzed in more details in the next notes.

Figure 3 shows the big dispersion in Mm correlations for 2Q2MHz and 2Q4MHz crystal pairs with Q4MHz-Qws always in channel 5 in the calendar period of 21 April and 14 May.

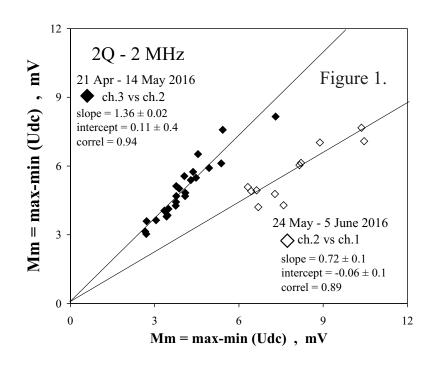
Figure 4 shows correlations of Mm values for 2Q2MHz always in channel 1 with the Mm values for the other tested crystal pairs on the calendar period of 28 August - 29 December when most of them results to be linear.

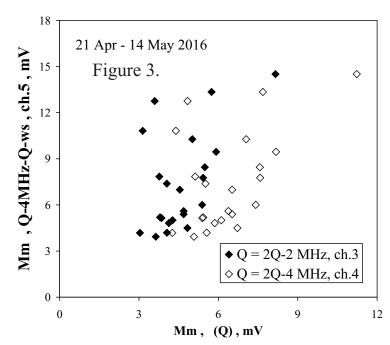
## **Concluding remarks:**

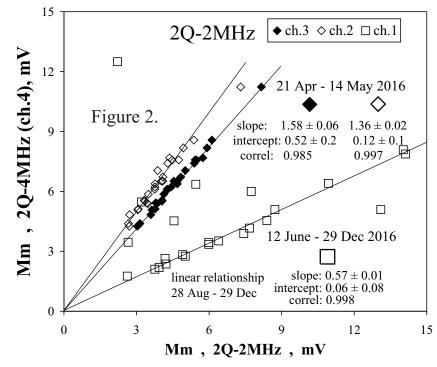
Repeatability of measurements can not be checked out because HMF and BF have specific activity both in each day and calendar period. However, the present note has revealed once again the high reproducibility specific both to each type of commercial quartz resonator tested in pair and measuring channel, by linear correlations of associated Mm values. Each crystal type has specific sensitivity (evidenced by slope) on changes in HMF and BF activity. Qwm and Qws have highest such sensitivity which is conversely proportional to crystal mass as it was already evidenced [1-3]. Measuring channels essentially differ each to other only by offset value, but not by amplification which could affect sensitivity. All selected crystal pairs have revealed that after 25 August the BF activity decreases, HMF activity increases and all Mm values linearly correlate.

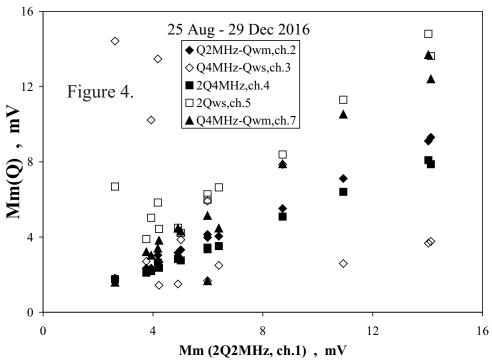
### References

- [1] G. Dragan, Interaction of quartz crystals with BF. I. Preliminary experiments on commercial quartz oscillators, GDF Databanks Bull., 20(6), 2016.
- [2] G. Dragan, Interaction of quartz crystals with BF. II. Differential measurements on pairs of commercial quartz oscillators, GDF Databanks Bull., 20(7), 2016.
- [3] G. Dragan, Interaction of quartz crystals with BF. III. Quartz selection and their significances, GDF Databanks Bull., 20(8), 2016.
- [4] G. Dragan, DTA study of water freezing (I-VII), GDF Databanks Bull., 17(5), 2013.
- [5] G. Dragan, Mental field-water interaction as evidenced by Isothermal Convection Flow Calorimetry (ICFC). (I, II), GDF Databanks Bull., 18(2), 2014.
- [6] G. Dragan, Evidence of human mental field by ac-electric conductivity in electrolyte solutions. 1. Bio-energy, GDF Databanks Bull., 19(6), 2015.









# About the author:

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experience	<ul> <li>Head of laboratory of analytical devices and</li> </ul>		
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publications	• 17 patents		
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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 9 <sup>th</sup> 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.  1 <sup>st</sup> 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	F

			ISSN 1453 - 1674	
			practice.(Plenary lecture at the 19 <sup>th</sup> 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. (12 <sup>th</sup> 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 14 <sup>th</sup> 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
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 2013 2013 2013	17 17	1	DTA study of water freezing.  IV. New facts on energy circuits.	F	
2013	17		LIV New facts on energy circuits		
2013	1 /	)	DTA study of water freezing. V. Effect of a mental antenna	F	
		2	AC electric conductivity of untreated and mentally treated electrolyte aqueous		
2013	17	3	solutions.	F	
	17	4	DTA study of water freezing. VI. Mental field in a working day.		
2013	17	5	DTA study of water freezing. VII. More statistical features on one week of	F	
		3	experiments.		
2013	17	6	HuPoTest: New measurements and results	F	
2013	17	7	Time as unique base quantity. (Proceedings of the 16th International Congress	F	
			of Metrology, 7-10 October 2013, Paris, France).		
2013	17	8	Eurovision song contest. 1.Basic social aspects  Mental field-water interaction as evidenced by Isothermal Convection Flow	F	
2013	17	9	Calorimetry (ICFC). I. ICFC description and preliminary results.	F	
2013	17	10	<ol> <li>Procedure for defining standard liquids for viscosity based on topoenergetic principles.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>Open letter to BRML and INM.</li> </ol>	F	
2014	18	1	Adiabatic calorimeter as high accuracy T-calibrator	F	
			Mental field-water interaction as evidenced by Isothermal Convection Flow		
2014	18	2	Calorimetry (ICFC). II. Effect of convection flow power.	F	
2014	18	3	Eurovision song contest. II. Copenhagen, Denmark 2014	F	
2014	10	3	and some more features on social mentality.	Г	
2014	18	4	The 38 <sup>th</sup> 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	10	4	High Resolution Mixing Calorimetry (HRMC) redivivus.		
2015	19	4	2. Structure developing of aqueous solutions by mixing experiments.	F	
2015	19	5	High Resolution Mixing Calorimetry (HRMC) redivivus. 3. Calibration	F	
2015	19	6	Evidence of human mental field by ac-electric conductivity in electrolyte solutions. 1. Bio-energy.	F	
2015	19	7	High resolution mixing calorimetry redivivus.IV. Specific heat of crystalline phase of water.  WPA2015: International Congress of World Psychiatric Association,Primary care mental health: innovation and transdisciplinarity, Bucharest, 24-27 June 2015, ROMANIA	F	
2016	20	1	Quo vadis population growth on planet Earth: more details	F	
2016	20	2	Structural aspects revealed by topoenergetic view on ac electric conductivity in HCl/(water + organic solvent)	F	
2016	20	3	Stability of amorphous-crystalline coupling in electrolyte aqueous solutions in relation to interaction with bio-fields	F	
2016	20	4	Efficient, simple and cheap outdoor extension of exhausting system using Bernoulli and thermal convection effects applied for air forced boilers on natural gas	F	
2016	20	5	Good quality home made soap in high efficient conditions	F	
2016	20	6	Interaction of quartz crystals with bio-fields.  I. Preliminary experiments on commercial quartz oscillators.	F	
2016	20	7	Interaction of quartz crystals with bio-fields.  II. Differential measurements on pairs of commercial quartz oscillators.	F	

# Previous issues of GDF DATABANKS BULLETIN, (continued)

2016	20	8	Interaction of quartz crystals with bio-fields. III. Quartz selection and their significances.	F
2016	20	9	HuPoTest – new attempt for self-evaluation and improvement of mental state	F

<sup>\*)</sup> F=free, AFI=ask for invoice.

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