

**Emanoil SURDUCAN – List of Patents, Patents Application and
Selective List of publications**

List of Patents and patents application

Nr.	Patent/patent application	Nr. of registration	Data	Autor's
1	Array of temperature sensors for characterizing food heating homogeneity	<u>RO132883 (A0)</u>	2018-10-30	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> NEAMȚU CAMELIA
2	Monolithic dual band antenna	<u>KR20180051494 (A1)</u> ; <u>CN108140709 (A)</u> <u>EP3326214 (A1)</u> <u>US2017025757 (A1)</u> <u>WO2017015265 (A1)</u>	2018-05-16	IANCU SABIN DANIEL <u>EMANOIL SURDUCAN</u> VASILE SURDUCAN
3	Microwave heating device	<u>RO131921 (A2)</u> ; <u>EP2947961 (A1)</u> <u>WO2015177244 (A1)</u>	2017-05-30	LIMARE ANGELA <u>SURDUCAN EMANOIL</u> SURDUCAN VASILE NEAMȚU CAMELIA DI GIUSEPPE ERIKA
4	Broadband antenna and rectenna made therewith, for collecting electrosmog and converting the same into electric energy	<u>RO131697 (A0)</u>	2017-02-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE NEAMȚU CAMELIA
5	Mobile automatic micro-irrigation device with soil moisture measurement and autonomous operation	<u>RO131669 (A0)</u>	2017-02-28	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u>
6	Device for reducing losses in faulty water networks that cannot be immediately repaired	<u>RO131580 (A2)</u> ; <u>RO131580 (B1)</u>	2016-12-30	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> GLIGAN NICOLAE ION BLĂNIȚĂ GABRIELA

7	Portable system for quick preparation of biodiesel fuel	<u>RO131127 (A2)</u>	2016-05-30	TUDORAN CRISTIAN DANIEL SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> DADARLAT NICOLAE DORIN
8	Microwave applicator with integrated detector area for temperature measurement	<u>RO131080 (A2)</u>	2016-04-29	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> DADARLAT NICOLAE
9	Cold plasma reactor for preparing biodiesel fuel	<u>RO131043 (A2)</u>	2016-04-29	TUDORAN CRISTIAN DANIEL TUDORAN MATEI CONSTANTIN SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> DADARLAT NICOLAE DORIN TOȘA NICOLETA IOANA
10	Stabilizing and controlling block meant to supply magnetron filament current	<u>RO130089 (A2)</u>	2015-02-27	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> LIMARE ANGELA
11	Modified printed dipole antennas for wireless multi-band communication systems	<u>TW200525819 (A)</u>	2005-08-01	<u>SURDUCAN EMANOIL</u> IANCU DANIEL GLOSSNER JOHN
12	Device for connecting a camera to a treatment enclosure under power microwave field for taking over in real time images of a processed sample	<u>RO129276 (A2);</u> <u>RO129276 (B1)</u>	2014-02-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE
13	Universal driver for the control of unipolar stepper motors	<u>RO128962 (A2);</u> <u>RO128962 (B1)</u>	2013-10-30	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u>
14	System for supplying an electronic relay piloted by a microcontroller	<u>RO126003 (A2);</u> <u>RO126003 (B1)</u>	2011-01-28	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u>
15	Temperature measuring method and transducer for power microwave field processing	<u>RO125999 (A2);</u> <u>RO125999 (B1)</u>	2011-01-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE

16	Process and installation for stimulating plant development in microwave field	<u>RO125068 (B1)</u>	2012-02-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE HALMAGYI ADELA EUGENIA
17	Method for thin-layer chromatographic separation in microwave field and installation for carrying out said method	<u>RO123363 (B1)</u>	2011-10-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE SORAN MARIA-LOREDANA BROS ILDIKO
18	Control module for driving microwave generators in medical and laboratory apparatuses	<u>RO126732 (A2)</u>	2011-09-30	SURDUCAN VASILE <u>SURDUCAN EMANOIL</u> NEAMȚU CAMELIA
19	Synthesis of organic-metal structures by microwave activation under atmospheric pressure	<u>RO126343 (A2);</u> <u>RO126343 (B1)</u>	2011-05-30	BLANITA GABRIELA ARDELEAN OVIDIU NICOLAE LUPU DAN MIRON <u>SURDUCAN EMANOIL</u> BORODI GHEORGHE VLASSA MIRCEA MISAN IOAN CODLEA IOAN DORIAN BIRIȘ ALEXANDRU RADU POPENECIU GABRIEL SURDUCAN VASILE
20	Microstrip Multi-Band Composite Antenna	<u>US2009079658 (A1);</u> <u>US7746276 (B2)</u>	2009-03-26	<u>SURDUCAN EMANOIL</u> IANCU DANIEL GLOSSNER JOHN
21	Process and installation for dynamic substance processing in power microwave field	<u>RO122063 (B1)</u>	2008-11-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE
22	Modified printed dipole antennas for wireless multi-band communication systems	<u>WO2005122333 (A1)</u>	2005-12-22	<u>SURDUCAN EMANOIL</u> IANCU DANIEL GLOSSNER JOHN

23	Process for activating ethylene-propylene-diene rubber in microwave plasma	<u>RO116624 (B1)</u>	2001-04-30	FILIP SORIN VASILE <u>SURDUCAN EMANOIL</u> SURDUCAN VASILE
24	Installation for treatment in microwave field	<u>RO116514 (B1)</u>	2001-02-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE NAGY GABRIELA FILIP SORIN VASILE
25	Thermographic transducer for microwave radiation	<u>RO116506 (B1)</u>	2001-02-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE
26	Process and device for heating fluids without dielectric losses in microwave field	<u>RO116515 (B1)</u>	2001-02-28	<u>SURDUCAN EMANOIL</u> SURDUCAN VASILE
27	Acridone synthesis process	<u>RO114616 (B1)</u>	1999-06-30	FILIP SORIN VASILE <u>SURDUCAN EMANOIL</u>

Selective List of publications 2006-2017

Nr	Authors	Title	Publication	Volume	Nr.	Pages	Year
1	Halmagyi, A; Surducan, E ; Surducan, V;	The effect of low-and high-power microwave irradiation on in vitro grown Sequoia plants and their recovery after cryostorage	Journal of biological physics	43	3	367-379	2017
2	Fourel, Loic; Limare, Angela; Jaupart, Claude; Surducan, Emanoil ; Farnetani, Cinzia G; Kaminski, Edouard C; Neamtu, Camelia; Surducan, Vasile ; Surducan, Emanoil ;	The Earth's mantle in a microwave oven: thermal convection driven by a heterogeneous distribution of heat sources	Experiments in Fluids	58	8	90	2017
3	Surducan, Vasile ; Surducan, Emanoil ;	Efficient low-power wireless communication setup for an autonomous soil moisture sensor	AIP Conference Proceedings	1917	1	30008	2017
4	Balint, C Vliche; Surducan, Vasile ; Surducan, Emanoil ; Oroian, IG;	Plant irradiation device in microwave field with controlled environment	Computers and Electronics in Agriculture	121		48-56	2016
5	Tripou, Carmen; Muntean, Cristina M; Surducan, Emanoil ; Bratu, Ioan; Halmagyi, Adela; Coste, Ana;	Structural response of genomic DNA from grapevine (<i>Vitis vinifera</i> L.) varieties to microwaves irradiation: A Fourier transform infrared spectroscopy assessment	Biomedical Spectroscopy and Imaging	5	3	295-312	2016
6	Limare, Angela; Vilella, Kenny; Di Giuseppe, Erika; Farnetani, CG; Kaminski, E; Surducan, Emanoil ; Surducan, Vasile ; Neamtu, Camelia; Fourel, LoA c; Jaupart, Claude;	Microwave-heating laboratory experiments for planetary mantle convection	Journal of Fluid Mechanics	777		50-67	2015
7	BALINT, Claudia; OROIAN, Ioan; SURDUCAN, Emanoil ; BORDEANU, Bianca; BORDEA, Daniela;	Testing Innovative Technique Based on Microwave Irradiation, for Stimulating Common Bean Germination and Development	Bulletin USAMV series Agriculture	72		1	2015
8	BALINT, Claudia; OROIAN, Ioan; SURDUCAN, Emanoil ; BORDEA, Daniela;	Comparative Study on Common Bean Behavior within Different Germination Conditions	ProEnvironment	8		13-16	2015
9	Limare, A; Fourel, L; Surducan, E ; Neamtu, C; Surducan, V ; Vilella, K; Farnetani, CG; Kaminski, E; Jaupart, C;	Microwave-based, internally-heated convection: New perspectives for the heterogeneous case	AIP Conference Proceedings	1700	1	40001	2015
10	Limare, A; Fourel, L; Surducan, E ; Neamtu, C;	Mantle Convection in a Microwave Oven: New Perspectives for the Internally Heated Convection	AGU Fall Meeting Abstracts				2015
11	Fourel, Loic; Limare, Angela; Surducan, Emanoil ; Surducan, Vasile ; Neamtu, Camelia; Vilella, Kenny; Farnetani, Cinzia; Kaminski, Edouard; Jaupart, Claude;	Stability of Continental Lithosphere based on Analogue Experiments with Microwave Induced Internal Heating	EGU General Assembly Conference Abstracts	17			2015
12	Surducan, Vasile ; Surducan, Emanoil ; Neamtu, Camelia; Dadarlat, Nicolae; Ciupa, Radu;	Easily usable human-device interface for microwave therapy apparatus	International Journal of Engineering & Technology	4	1	90	2015
13	Surducan, E ; Neamtu, C; Ienciu, M; Surducan, V ; Limare, A; Fourel, L;	Dielectric properties measurement method in the microwave frequencies range for non-polar/polar liquid mixtures characterization	AIP Conference Proceedings	1700	1	50008	2015
14	Surducan, E ; Surducan, V ; Limare, A; Neamtu, C; Di Giuseppe, E;	Microwave heating device for internal heating convection experiments, applied to Earth's mantle dynamics	Review of Scientific Instruments	85	12	12470 2	2014
15	Surducan, Emanoil ; Surducan, Vasile ;	2.5 GHz slot antenna arrayă Prototype applicator for heating applications	Information Science, Electronics and Electrical Engineering (ISEEE), 2014 International Conference on	1		67-70	2014

16	Vilella, Kenny; Limare, Angela; Kaminski, Edouard; Farnetani, Cinzia G; Jaupart, Claude; Surduncan, Emanoli ; Di Giuseppe, Erika; Surduncan, Vasile; Neamtu, Camelia; Fourel, Loic;	Numerical and laboratory experiment of volumetrically heated fluid: implications of boundary conditions on planetary evolution.	EGU General Assembly Conference Abstracts	16			2014
17	Limare, Angela; Surduncan, Emanoli; di Giuseppe, Erika; Surduncan, Vasile; Neamtu, Camelia; Vilella, Kenny; Fourel, Loic; Farnetani, Cinzia; Kaminski, Edouard; Jaupart, Claude;	Laboratory convection experiments with internal, noncontact, microwave generated heating, applied to Earth's mantle dynamics	EGU General Assembly Conference Abstracts	16			2014
18	Surduncan, Vasile; Surduncan, Emanoli ;	Low-Cost Microwave Power Generator for Scientific and Medical Use [Application Notes]	IEEE Microwave Magazine	14	4	124-130	2013
19	Limare, A; Surduncan, E ; Surduncan , V; Neamtu, C; Di Giuseppe, E; Vilella, K; Farnetani, CG; Kaminski, E; Jaupart, C;	Microwave-based laboratory experiments for internally-heated mantle convection	AIP Conference Proceedings	1565	1	14-18	2013
20	Surduncan, Emanoli ; Neamtu, Camelia; Surduncan, Vasile; Limare, Angela; Di Giuseppe, Erika;	Microwaves heating in a specific experimental configuration	AIP Conference Proceedings	1565	1	161-163	2013
21	Surduncan, EMANOIL ; Surduncan, VASILE; Butiuc-Keul, ANCA; Halgamag, A;	Microwaves irradiation experiments on biological samples	Studia Universitatis Babeş-Bolyai Biologia	58	1	83-98	2013
22	Surduncan, E ; Limare, A; Surduncan, V; Neamtu, C; Di Giuseppe, E;	Microwaves power distribution map revealed by liquid crystals	Electromagnetics in Advanced Applications (ICEAA), 2013 International Conference on			287-288	2013
23	Surduncan, V; Surduncan, E ; Dadarlat, D;	Low cost method for temperature measurements on a multilayer system heated by microwave power field	Measurement Science and Technology	25	1	15011	2013
24	Surduncan, Aneta; Dabala, Dana; Neamtu, Camelia; Surduncan, Vasile; Surduncan, Emanoli ;	Mobile phone and my health	AIP Conference Proceedings	1565	1	164-166	2013
25	Dabala, Dana; Surduncan, Emanoli; Surduncan, Vasile; Neamtu, Camelia;	Risk assessment and management of radiofrequency radiation exposure	AIP Conference Proceedings	1565	1	171-174	2013
26	Surduncan, V; Surduncan, E ; Dadarlat, D;	Simple method for highlighting the temperature distribution into a liquid sample heated by microwave power field	AIP Conference Proceedings	1565	1	167-170	2013
27	Surduncan, E ; Surduncan, V; Neamtu, C;	Measurements of the liquids dielectric properties changes with temperature for microwaves power processing optimization	AIP Conference Proceedings	1425	1	85-88	2012
28	Surduncan, V; Surduncan, E ; Ciupa, R; Neamtu, C;	Microwave generator for scientific and medical applications	AIP Conference Proceedings	1425	1	89-92	2012
29	CIUPA, R; Surduncan, Emanoli ; SURDUCAN, V;	Variable Power, Short Microwave Pulses Generation using a CW Magnetron	Advances in Electrical and Computer Engineering	11	2	49-54	2011
30	Iftode, Cora; Miclaus, Simona; Bechet, Paul; Surduncan, Emanoli ;	A TEM cell model analysis for radiofrequency dosimetry improvement by computational means	Advanced Topics in Electrical Engineering (ATEE), 2011 7th International Symposium on			4-Jan	2011
31	Surduncan, Vasile; Surduncan, Emanoli ; Ciupa, Radu; Neamtu, Camelia;	Determination of microwave generators' performance for medical applications	2011 7TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE)			4-Jan	2011
32	Surduncan, Vasile; Surduncan, Emanoli ;	Increase efficiency in embedded digital-I/O lines	EDN	56	8	54-+	2011
33	Surduncan, Vasile; Surduncan, Emanoli ; Ciupa, Radu; Roman, Martus N;	Embedded system controlling microwave generators in hyperthermia and diathermy medical devices	Automation Quality and Testing Robotics (AQTR), 2010 IEEE International Conference on	2		6-Jan	2010

34	Surducan, Emanoil; Surducan, Vasile; Neamtu, Camelia; Tudoran, Cristian D;	Near-field effect of the microwaves power applicators investigated for liquid processing applications	Automation Quality and Testing Robotics (AQTR), 2010 IEEE International Conference on	3	4-Jan	2010
35	Surducan, Vasile; Surducan, Emanoil; Ciupa, Radu;	Medical and scientific apparatus with microwave thermal and non-thermal effect	Revista de Tehnologii Neconventionale	14	1	2010
36	Soran, Maria Loredana; Cobzac, Simona Codruta; Varodi, Codruta; Lung, Ildiko; Surducan, Emanoil; Surducan, Vasile;	EXTRACTION AND CHROMATOGRAPHIC DETERMINATION OF ESSENTIAL OILS FROM OCIMUM BASILICUM L. LEAVES.	Studia Universitatis Babes-Bolyai, Chemia	3	3	2010
37	Soran, Maria Loredana; Cobzac, Simona Codruta; Varodi, Codruta; Lung, Ildiko; Surducan, Emanoil; Surducan, Vasile;	The extraction and chromatographic determination of the essentials oils from <i>Ocimum basilicum</i> L. by different techniques	Journal of Physics: Conference Series	182	1	2009
38	Surducan, Emanoil; Moudgilli, Mayan; Nacer, Gary; Stanley, Stuart; Yu, Meng; Iancu, Daniel;	The sandblaster software-defined radio platform for mobile 4G wireless communications	International Journal of Digital Multimedia Broadcasting	2009		2009
39	Surducan, Emanoil; Surducan, Vasile; Iancu, Daniel; Glossner, John;	Multiband Antennas for SDR Applications	International Journal of Digital Multimedia Broadcasting	2009		2009
40	Surducan, Emanoil; Neamtu, Camelia; Surducan, Vasile;	Dielectric properties of Zea mays kernels—studies for microwave power processing applications	Journal of Physics: Conference Series	182	1	2009
41	Glossner, J; Iancu, DS; Ye, H; Pogudin, Y; Iancu, A; Takala, J; LeppAikoski, H; Surducan, V; Surducan, E;	Software GPS in SB3500 processor	Proceedings of SDR09 Technical Conference and Product Exposition, 1-4 December, 2009, Washington, USA			2009
42	Surducan, Vasile; Lung, Ildiko; Surducan, Emanoil;	The effect of coloured light on <i>Ipomoea purpurea</i> growth	Journal of Physics: Conference Series	182	1	2009
43	Soran, Maria-Loredana; Bros, Ildika; Surducan, Emanoil; Surducan, Vasile;	Microwave assisted thin-layer chromatography—an improved separation technique	JPC-Journal of Planar Chromatography-Modern TLC	21	4	2008
44	Gaina, Luiza; Cristea, Castelia; Moldovan, Claudia; Porumb, Dan; Surducan, Emanoil; Deleanu, Calin; Mahamoud, Abdalah; Barbe, Jacques; Silberg, Ioan A;	Microwave-Assisted Synthesis of Phenothiazine and Quinoline Derivatives	International journal of molecular sciences	8	2	2007
45	Surducan, E; Iancu, D; Surducan, V; Glossner, J;	Miniature multiband antennas for hand held WiMAX and WiFi application	Electromagnetics in Advanced Applications, 2007. ICEAA 2007. International Conference on		13-16	2007
46	Surducan, E; Iancu, DS; Surducan, V; Stanley, S;	Multi-band antennas for SDR wireless handset application	Electromagnetics in Advanced Applications, 2007. ICEAA 2007. International Conference on		523-526	2007
47	Unguresan, Mihaela Ligia; Niac, Gavril; Surducan, Emanoil; Surducan, Vasile;	" Stopped-flow" installation for the study of rapid reactions kinetics in solutions. Reaction between Cu2+ and S2O3	REVISTA DE CHIMIE	58	1	2007
48	Iancu, Daniel; Ye, Hua; Surducan, Emanoil; Senthilvelan, Murugappan; Glossner, John; Surducan, Vasile; Kotlyar, Vladimir; Iancu, Andrei; Nacer, Gary; Takala, Jarmo;	Software implementation of WiMAX on the Sandbridge SandBlaster platform	International Workshop on Embedded Computer Systems		435-446	2006
49	Surducan, Emanoil; Iancu, Daniel S; Surducan, Vasile; Glossner, John;	Microstrip composite antenna for multiple communication protocols	International Journal of Microwave and Optical Technology	1	2	2006
50	Unguresan, Mihaela Ligia; Colosi, Tiberiu; Surducan, Emanoil; Surducan, Vasile;	Systemic Approach for Numerical Modeling and Simulation of the Impulse Response for Rapid Reaction Cu2+? S2O32?	2006 IEEE International Conference on Automation, Quality and Testing, Robotics		72-76	2006

