

(12) **United States Patent**
Schwarz et al.

(10) **Patent No.:** **US 10,695,576 B2**
(45) **Date of Patent:** **Jun. 30, 2020**

(54) **AESTHETIC METHOD OF BIOLOGICAL
STRUCTURE TREATMENT BY MAGNETIC
FIELD**

(71) Applicant: **BTL Medical Technologies S.R.O.**,
Prague (CZ)

(72) Inventors: **Tomás Schwarz**, Prague (CZ); **Ondra
Prouza**, Ricany u Prahy (CZ)

(73) Assignee: **BTL MEDICAL TECHNOLOGIES
S.R.O.**, Prague (CZ)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **16/674,144**

(22) Filed: **Nov. 5, 2019**

(65) **Prior Publication Data**

US 2020/0139148 A1 May 7, 2020

Related U.S. Application Data

(63) Continuation of application No. 16/218,735, filed on
Dec. 13, 2018, now Pat. No. 10,617,883, which is a
continuation-in-part of application No. 16/042,093,
filed on Jul. 23, 2018, now Pat. No. 10,245,439,
which is a continuation-in-part of application No.
15/954,783, filed on Apr. 17, 2018, now Pat. No.
10,493,293, and a continuation-in-part of application
No. 15/344,811, filed on Nov. 7, 2016, now
abandoned, said application No. 15/954,783 is a
continuation-in-part of application No. 15/862,410,
(Continued)

(51) **Int. Cl.**
A61N 2/00 (2006.01)
A61N 2/02 (2006.01)

(52) **U.S. Cl.**
CPC **A61N 2/008** (2013.01); **A61N 2/006**
(2013.01); **A61N 2/02** (2013.01)

(58) **Field of Classification Search**

CPC A61N 2/006; A61N 2/02; A61N 2/004;
A61N 5/007; A63B 21/00181; A63B
71/0009; A63B 71/0605; A63B 22/0076;
A63B 22/0664; A63B 22/0605; A63B
2220/54; A63B 2213/004

USPC 600/9-15
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,658,051 A 4/1972 MacLean et al.
3,915,151 A 10/1975 Kraus et al.
(Continued)

FOREIGN PATENT DOCUMENTS

AU 2011265424 B2 7/2014
AU 2012244313 B2 11/2014
(Continued)

OTHER PUBLICATIONS

Abulhasan, J.F., et al., "Peripheral Electrical and Magnetic Stimu-
lation to Augment Resistance Training," Journal of Functional
Morphology and Kinesiology, 1(3):328-342, (Sep. 2016).

(Continued)

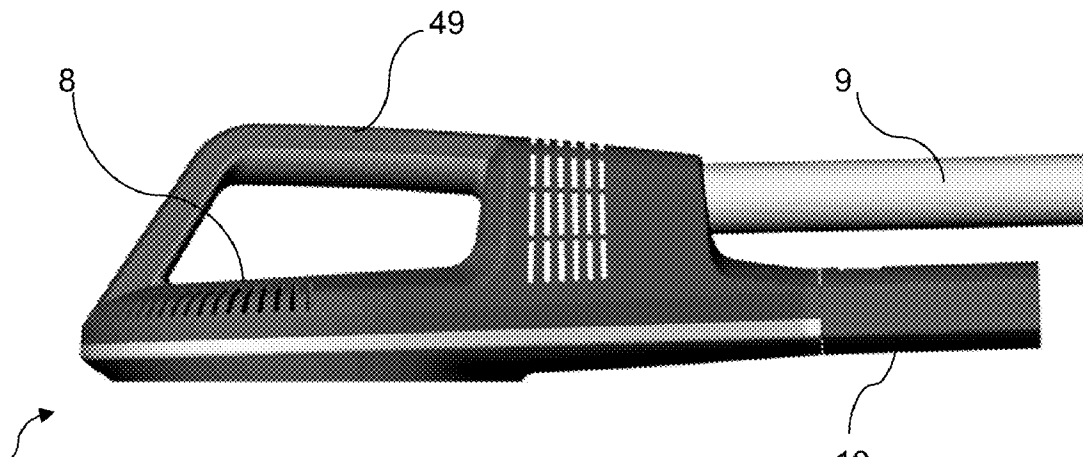
Primary Examiner — Samuel G Gilbert

(74) *Attorney, Agent, or Firm* — Sterne, Kessler,
Goldstein & Fox P.L.L.C.

(57) **ABSTRACT**

Combined methods for treating a patient using time-varying
magnetic field are described. The treatment methods com-
bine various approaches for aesthetic treatment. The meth-
ods are focused on enhancing a visual appearance of the
patient.

30 Claims, 25 Drawing Sheets



Related U.S. Application Data

filed on Jan. 4, 2018, now Pat. No. 10,569,094, and a continuation-in-part of application No. 15/677,371, filed on Aug. 15, 2017, now Pat. No. 9,974,519, and a continuation-in-part of application No. 15/601,719, filed on May 22, 2017, now Pat. No. 10,596,386, said application No. 15/862,410 is a continuation-in-part of application No. 15/473,390, filed on Mar. 29, 2017, now abandoned, said application No. 15/677,371 is a continuation-in-part of application No. 15/446,951, filed on Mar. 1, 2017, now Pat. No. 9,937,358, and a continuation-in-part of application No. 15/404,384, filed on Jan. 12, 2017, said application No. 15/446,951 is a continuation-in-part of application No. 15/396,073, filed on Dec. 30, 2016, now abandoned, which is a continuation-in-part of application No. 15/178,455, filed on Jun. 9, 2016, now abandoned, which is a continuation-in-part of application No. 15/151,012, filed on May 10, 2016, now Pat. No. 10,124,187, said application No. 15/862,410 is a continuation-in-part of application No. 15/860,443, filed on Jan. 2, 2018, now Pat. No. 10,549,109, said application No. 16/218,735 is a continuation-in-part of application No. 16/034,752, filed on Jul. 13, 2018, now Pat. No. 10,549,110, and a continuation-in-part of application No. 16/034,793, filed on Jul. 13, 2018, now Pat. No. 10,478,634, and a continuation-in-part of application No. 16/196,798, filed on Nov. 20, 2018, now Pat. No. 10,478,633, and a continuation-in-part of application No. 16/196,837, filed on Nov. 20, 2018, now Pat. No. 10,471,269.

(56)

References Cited**U.S. PATENT DOCUMENTS**

4,237,898	A	12/1980	Whalley	
4,315,503	A	2/1982	Ryaby et al.	
4,454,883	A	6/1984	Fellus	
4,456,001	A	6/1984	Pescatore	
4,665,898	A	5/1987	Costa et al.	
4,674,505	A	6/1987	Pauli et al.	
4,850,959	A	7/1989	Findl	
4,993,413	A	2/1991	McLeod et al.	
5,067,940	A	11/1991	Liboff et al.	
5,085,626	A	2/1992	Frey	
5,334,181	A	8/1994	Rubinsky et al.	
5,401,233	A	3/1995	Erickson et al.	
5,674,218	A	10/1997	Rubinsky et al.	
5,718,662	A	2/1998	Jalinous	
5,766,124	A	6/1998	Polson	
5,782,743	A	7/1998	Russell	
5,807,232	A	9/1998	Espinoza et al.	
5,908,444	A	6/1999	Azure	
5,984,854	A *	11/1999	Ishikawa	A61N 2/02 600/9
6,017,337	A	1/2000	Pira	
6,032,675	A	3/2000	Rubinsky	
6,063,108	A	5/2000	Salansky et al.	
6,086,525	A	7/2000	Davey et al.	
6,099,459	A	8/2000	Jacobson	
6,117,066	A	9/2000	Abrams et al.	
6,141,985	A	11/2000	Cluzeau et al.	
6,179,769	B1	1/2001	Ishikawa et al.	
6,179,770	B1	1/2001	Mould	
6,213,933	B1 *	4/2001	Lin	A61N 2/02 600/13
6,223,750	B1	5/2001	Ishikawa et al.	
6,350,276	B1	2/2002	Knowlton	

6,527,694	B1	3/2003	Ishikawa et al.
6,569,078	B2	5/2003	Ishikawa et al.
6,605,080	B1	8/2003	Altshuler et al.
6,635,053	B1	10/2003	Lalonde et al.
6,749,624	B2	6/2004	Knowlton
6,889,090	B2	5/2005	Kreindel
6,939,287	B1	9/2005	Ardizzone et al.
6,960,202	B2	11/2005	Cluzeau et al.
7,030,764	B2	4/2006	Smith et al.
7,041,100	B2	5/2006	Kreindel
7,217,265	B2	5/2007	Hennings et al.
7,276,058	B2	10/2007	Altshuler et al.
7,318,821	B2	1/2008	Lalonde et al.
7,351,252	B2	4/2008	Altshuler et al.
7,367,341	B2	5/2008	Anderson et al.
7,520,849	B1	4/2009	Simon
7,601,115	B2	10/2009	Riehl
7,608,035	B2	10/2009	Farone
7,740,574	B2	6/2010	Pilla et al.
7,744,523	B2	6/2010	Epstein
7,783,348	B2	8/2010	Gill et al.
7,785,358	B2	8/2010	Lach
7,854,754	B2	12/2010	Ting et al.
7,946,973	B2	5/2011	Peterchev
7,998,053	B2	8/2011	Aho
RE43,007	E	12/2011	Lalonde et al.
8,088,058	B2	1/2012	Juliana et al.
8,192,474	B2	6/2012	Levinson
8,275,442	B2	9/2012	Allison
8,285,390	B2	10/2012	Levinson et al.
8,337,539	B2	12/2012	Ting et al.
8,366,756	B2	2/2013	Tucek et al.
8,523,927	B2	9/2013	Levinson et al.
8,603,073	B2	12/2013	Allison
8,676,338	B2	3/2014	Levinson
8,702,774	B2	4/2014	Baker et al.
8,771,326	B2	7/2014	Myeong et al.
8,834,547	B2	9/2014	Anderson et al.
8,840,608	B2	9/2014	Anderson et al.
8,915,948	B2	12/2014	Altshuler et al.
8,932,338	B2	1/2015	Lim et al.
8,979,727	B2	3/2015	Ron et al.
8,998,791	B2	4/2015	Ron et al.
9,002,477	B2	4/2015	Burnett
9,028,469	B2	5/2015	Jones et al.
9,044,595	B2	6/2015	Araya et al.
9,078,634	B2	7/2015	Gonzales et al.
9,132,031	B2	9/2015	Levinson et al.
9,149,650	B2	10/2015	Shanks et al.
9,308,120	B2	4/2016	Anderson et al.
9,314,368	B2	4/2016	Allison et al.
9,358,068	B2	6/2016	Schomacker et al.
9,358,149	B2	6/2016	Anderson et al.
9,375,345	B2	6/2016	Levinson et al.
9,398,975	B2	7/2016	Müller et al.
9,408,745	B2	8/2016	Levinson et al.
9,439,805	B2	9/2016	Gonzales et al.
9,545,523	B2	1/2017	Nanda
9,586,057	B2	3/2017	Ladman et al.
9,610,429	B2	4/2017	Harris et al.
9,636,519	B2	5/2017	Ladman et al.
9,649,220	B2	5/2017	Anderson et al.
9,655,770	B2	5/2017	Levinson et al.
9,737,434	B2	8/2017	Allison
9,844,460	B2	12/2017	Weber et al.
9,844,461	B2	12/2017	Levinson et al.
9,855,166	B2	1/2018	Anderson et al.
9,861,421	B2	1/2018	O'Neil et al.
9,861,520	B2	1/2018	Baker et al.
9,919,161	B2	3/2018	Schwarz et al.
9,937,358	B2	4/2018	Schwarz et al.
9,974,519	B1	5/2018	Schwarz et al.
9,974,684	B2	5/2018	Anderson et al.
9,980,765	B2	5/2018	Avram et al.
10,092,346	B2	10/2018	Levinson
10,111,770	B2	10/2018	Harris et al.
10,111,774	B2	10/2018	Gonzales et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

10,245,439	B1	4/2019	Schwarz et al.	2013/0103127	A1	4/2013	Mueller et al.
2001/0031906	A1	10/2001	Ishikawa et al.	2013/0116758	A1	5/2013	Levinson et al.
2002/0049483	A1	4/2002	Knowlton	2013/0116759	A1	5/2013	Levinson et al.
2003/0158585	A1	8/2003	Burnett	2013/0123568	A1	5/2013	Hamilton et al.
2003/0220674	A1	11/2003	Anderson et al.	2013/0123764	A1	5/2013	Zarsky et al.
2004/0073079	A1	4/2004	Altshuler et al.	2013/0123765	A1	5/2013	Zarsky et al.
2004/0102768	A1	5/2004	Cluzeau et al.	2013/0131764	A1	5/2013	Grove
2004/0210287	A1	10/2004	Greene	2013/0137918	A1	5/2013	Phillips et al.
2005/0090814	A1	4/2005	Lalonde et al.	2013/0150653	A1	6/2013	Borsody
2005/0251120	A1	11/2005	Anderson et al.	2013/0158440	A1	6/2013	Allison
2006/0152301	A1	7/2006	Rohwedder	2013/0158634	A1	6/2013	Ron et al.
2006/0187607	A1	8/2006	Mo	2013/0158636	A1	6/2013	Ting et al.
2006/0287566	A1	12/2006	Zangen et al.	2013/0190744	A1	7/2013	Avram et al.
2007/0010861	A1	1/2007	Anderson et al.	2013/0238061	A1	9/2013	Ron Oded et al.
2007/0083237	A1	4/2007	Teruel	2013/0245731	A1	9/2013	Allison
2007/0088413	A1	4/2007	Weber et al.	2013/0253384	A1	9/2013	Anderson et al.
2007/0198071	A1	8/2007	Ting et al.	2013/0253493	A1	9/2013	Anderson et al.
2007/0255362	A1	11/2007	Levinson et al.	2013/0253494	A1	9/2013	Anderson et al.
2007/0270925	A1	11/2007	Levinson	2013/0253495	A1	9/2013	Anderson et al.
2008/0077201	A1	3/2008	Levinson et al.	2013/0253496	A1	9/2013	Anderson et al.
2008/0077202	A1	3/2008	Levinson	2013/0317281	A1	11/2013	Schneider et al.
2008/0077211	A1	3/2008	Levinson et al.	2013/0331637	A1	12/2013	Greff
2008/0103565	A1	5/2008	Altshuler et al.	2014/0005760	A1	1/2014	Levinson et al.
2008/0188915	A1	8/2008	Mills et al.	2014/0018767	A1	1/2014	Harris et al.
2008/0249350	A1	10/2008	Marchitto et al.	2014/0025033	A1	1/2014	Mirkov et al.
2008/0262287	A1	10/2008	Dussau	2014/0046423	A1	2/2014	Rajguru et al.
2008/0287839	A1	11/2008	Rosen et al.	2014/0067025	A1	3/2014	Levinson et al.
2008/0306325	A1	12/2008	Burnett et al.	2014/0081359	A1	3/2014	Sand
2008/0306326	A1	12/2008	Epstein	2014/0148870	A1	5/2014	Burnett
2009/0005631	A1	1/2009	Simenhaus et al.	2014/0257443	A1	9/2014	Baker et al.
2009/0018384	A1	1/2009	Boyden et al.	2014/0277219	A1	9/2014	Nanda
2009/0018623	A1	1/2009	Levinson et al.	2014/0277302	A1	9/2014	Weber et al.
2009/0018624	A1	1/2009	Levinson et al.	2014/0303696	A1	10/2014	Anderson et al.
2009/0018625	A1	1/2009	Levinson et al.	2014/0303697	A1	10/2014	Anderson et al.
2009/0018626	A1	1/2009	Levinson et al.	2014/0316393	A1	10/2014	Levinson
2009/0018627	A1	1/2009	Levinson et al.	2014/0330067	A1	11/2014	Jordan
2009/0024193	A1	1/2009	Altshuler et al.	2014/0364841	A1	12/2014	Kornstein
2009/0108969	A1	4/2009	Sims et al.	2014/0371515	A1	12/2014	John
2009/0118722	A1	5/2009	Ebbers et al.	2015/0025299	A1	1/2015	Ron et al.
2009/0149929	A1	6/2009	Levinson et al.	2015/0080769	A1	3/2015	Lotsch
2009/0234423	A1	9/2009	Vetanze	2015/0088105	A1	3/2015	Fatemi
2010/0036368	A1	2/2010	England et al.	2015/0112412	A1	4/2015	Anderson et al.
2010/0081971	A1	4/2010	Allison	2015/0119849	A1	4/2015	Aronhalt et al.
2010/0087699	A1	4/2010	Peterchev	2015/0123661	A1	5/2015	Yui et al.
2010/0121131	A1	5/2010	Mathes	2015/0127075	A1	5/2015	Ward et al.
2010/0152522	A1	6/2010	Roth et al.	2015/0133717	A1	5/2015	Ghiron et al.
2010/0152824	A1	6/2010	Allison	2015/0157873	A1	6/2015	Sokolowski
2010/0160712	A1	6/2010	Burnett et al.	2015/0165232	A1	6/2015	Altshuler et al.
2010/0179372	A1	7/2010	Glassman	2015/0216719	A1	8/2015	Debenedictis et al.
2010/0222629	A1	9/2010	Burnett et al.	2015/0216720	A1	8/2015	Debenedictis et al.
2010/0280582	A1	11/2010	Baker et al.	2015/0216816	A1	8/2015	O'Neil et al.
2010/0309689	A1	12/2010	Coulson	2015/0223975	A1	8/2015	Anderson et al.
2010/0331603	A1	12/2010	Szecs	2015/0272776	A1	10/2015	Gonzales et al.
2011/0021863	A1	1/2011	Burnett et al.	2015/0297909	A1	10/2015	Peashock
2011/0066216	A1	3/2011	Ting et al.	2015/0328077	A1	11/2015	Levinson
2011/0077451	A1	3/2011	Marchitto et al.	2015/0328475	A1	11/2015	Kim et al.
2011/0087312	A1	4/2011	Shanks et al.	2015/0342780	A1	12/2015	Levinson et al.
2011/0130618	A1	6/2011	Ron et al.	2015/0367141	A1	12/2015	Goetz et al.
2011/0224761	A1	9/2011	Manstein	2016/0030763	A1	2/2016	Midorikawa et al.
2011/0238050	A1	9/2011	Allison et al.	2016/0051401	A1	2/2016	Yee et al.
2011/0238051	A1	9/2011	Levinson et al.	2016/0051827	A1	2/2016	Ron et al.
2011/0263925	A1	10/2011	Bratton	2016/0066994	A1	3/2016	Shanks
2011/0300079	A1	12/2011	Martens et al.	2016/0089550	A1	3/2016	Debenedictis et al.
2012/0022518	A1	1/2012	Levinson	2016/0175193	A1	6/2016	Jung
2012/0053449	A1	3/2012	Moses et al.	2016/0250494	A1	9/2016	Sakaki et al.
2012/0197361	A1	8/2012	Gonzales et al.	2016/0270951	A1	9/2016	Martins et al.
2012/0215210	A1	8/2012	Brown et al.	2016/0317346	A1	11/2016	Kovach
2012/0239123	A1	9/2012	Weber et al.	2016/0317827	A1	11/2016	Schwarz et al.
2012/0302821	A1	11/2012	Burnett	2016/0324684	A1	11/2016	Levinson et al.
2012/0310033	A1	12/2012	Muntermann	2016/0354237	A1	12/2016	Gonzales et al.
2012/0330090	A1	12/2012	Sham et al.	2017/0001024	A1	1/2017	Prouza
2013/0030239	A1	1/2013	Weyh et al.	2017/0001025	A1	1/2017	Schwarz et al.
2013/0053620	A1	2/2013	Susedik et al.	2017/0001026	A1	1/2017	Schwarz et al.
				2017/0001027	A1	1/2017	Ladman et al.
				2017/0001028	A1	1/2017	Ladman et al.
				2017/0001029	A1	1/2017	Pribula et al.
				2017/0001030	A1	1/2017	Pribula et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2017/0105869	A1	4/2017	Frangineas, Jr.
2017/0106201	A1	4/2017	Schwarz et al.
2017/0120067	A1	5/2017	Prouza
2017/0156907	A1	6/2017	Harris et al.
2017/0173347	A1	6/2017	Schwarz et al.
2017/0182334	A1	6/2017	Altshuler et al.
2017/0182335	A1	6/2017	Altshuler et al.
2017/0196731	A1	7/2017	Debenedictis et al.
2017/0239079	A1	8/2017	Root et al.
2017/0319378	A1	11/2017	Anderson et al.
2017/0325992	A1	11/2017	Debenedictis et al.
2017/0325993	A1	11/2017	Jimenez et al.
2017/0326042	A1	11/2017	Zeng et al.
2017/0326346	A1	11/2017	Jimenez et al.
2017/0348143	A1	12/2017	Rosen et al.
2018/0001106	A1	1/2018	Schwarz
2018/0001107	A1	1/2018	Schwarz et al.
2018/0125416	A1	5/2018	Schwarz et al.
2018/0153736	A1	6/2018	Mills et al.
2018/0153760	A1	6/2018	Rosen et al.
2018/0161197	A1	6/2018	Baker et al.
2018/0185081	A1	7/2018	O'Neil et al.
2018/0185189	A1	7/2018	Weber et al.
2018/0214300	A1	8/2018	Anderson et al.
2018/0228646	A1	8/2018	Gonzales et al.
2018/0236254	A1	8/2018	Schwarz et al.
2018/0250056	A1	9/2018	Avram et al.
2018/0263677	A1	9/2018	Hilton et al.
2018/0271767	A1	9/2018	Jimenez et al.
2018/0310950	A1	11/2018	Yee et al.
2019/0000524	A1	1/2019	Rosen et al.
2019/0000663	A1	1/2019	Anderson et al.
2019/0029876	A1	1/2019	Anderson et al.
2019/0053941	A1	2/2019	Samson

FOREIGN PATENT DOCUMENTS

AU	2014203094	B2	7/2015
AU	2013207657	B2	11/2015
CA	2604112	C	7/2016
CA	3019140	A1	10/2017
CA	3023821	A1	11/2017
CN	201906360	U	7/2011
CN	102319141	A	1/2012
CN	107613914	A	1/2018
CN	108882992	A	11/2018
CN	109310516	A	2/2019
DE	1118902	B	12/1961
DE	3205048	A1	8/1983
DE	3610474	A	10/1986
DE	69318706	T2	1/1999
DK	0633008	T3	3/1999
EP	0209246	A1	1/1987
EP	0459401	A1	12/1991
EP	0633008	A1	1/1995
EP	1917935	B1	1/2011
EP	2676700	A2	12/2013
EP	2749259	A1	7/2014
EP	2856986	A1	4/2015
EP	3342379	A1	7/2018
ES	2118925	T3	10/1998
ES	2300569	T3	6/2008
ES	2359581	T3	5/2011
ES	2533145	A2	4/2015
FR	3041881	A1	4/2017
FR	3061012	A1	6/2018
GB	2286660	A	8/1995
GR	3027678	T3	11/1998
JP	2006130055	A	5/2006
JP	4324673	B2	9/2009
JP	2010533054	A	10/2010
JP	2017518857	A	7/2017
KR	20150106379	A	9/2015

KR	101794269	B1	11/2017
KR	20190005981	A	1/2019
MX	2012012158	A	4/2014
WO	WO-0044346	A1	8/2000
WO	WO-0225675	A1	3/2002
WO	WO-03078596	A2	9/2003
WO	WO-03090863	A1	11/2003
WO	WO-03103769	A1	12/2003
WO	WO-2004087255	A1	10/2004
WO	WO-2008109058	A1	9/2008
WO	WO-2009011708	A1	1/2009
WO	WO-2010007614	A2	1/2010
WO	WO-2010135425	A1	11/2010
WO	WO-2013026393	A1	2/2013
WO	WO-2013191699	A1	12/2013
WO	WO-2014109653	A1	7/2014
WO	WO-2015012672	A1	1/2015
WO	WO-2015137733	A1	9/2015
WO	WO-2015179571	A1	11/2015
WO	WO-2017159959	A1	9/2017
WO	WO-2017176621	A1	10/2017
WO	WO-2017196548	A1	11/2017
WO	WO-2018044825	A1	3/2018
WO	WO-2018121998	A2	7/2018
WO	WO-2018122535	A1	7/2018
WO	WO-2017160097	A3	9/2018

OTHER PUBLICATIONS

Bachasson, D., et al., "Quadriceps Function Assessment Using an Incremental Test and Magnetic Neurostimulation: a Reliability Study," *Journal of Electromyography and Kinesiology*, 23(3):649-658, Elsevier, England, (Jun. 2013).

Barker, A.T., "An Introduction to the Basic Principles of Magnetic Nerve Stimulation," *Journal of Clinical Neurophysiology*, 8(1):26-37, Lippincott Williams & Wilkins, United States, (Jan. 1991).

Behrens, M., et al., "Repetitive Peripheral Magnetic Stimulation (15 Hz RPS) of the Human Soleus Muscle did not Affect Spinal Excitability," *Journal of Sports Science and Medicine*, 10(1):39-44, Dept. of Sports Medicine, Medical Faculty of Uludag University, Turkey (Mar. 2011).

Beilin, G., et al., "Electromagnetic Fields Applied to the Reduction of Abdominal Obesity," *Journal of Cosmetic & Laser Therapy*, 14(1):24-42, Informa Healthcare, England, (Feb. 2012).

Bustamante, V., et al., "Muscle Training With Repetitive Magnetic Stimulation of the Quadriceps in Severe COPD Patients," *Respiratory Medicine*, 104(2):237-245, Elsevier, England, (Feb. 2010).

Bustamante, V., et al., "Redox Balance Following Magnetic Stimulation Training in the Quadriceps of Patients With Severe COPD," *Free Radical Research*, 42(11-12):939-948, Informa Healthcare, England, (Nov. 2008).

Caress, J.B., et al., "A Novel Method of Inducing Muscle Cramps Using Repetitive Magnetic Stimulation," *Muscle Nerve*, 23(1):126-128, John Wiley & Sons, United States, (Jan. 2000).

Course in Physical Therapy, Presentation, Jan. 4, 2013, 156 pages. CR Technology, SALUS-TALENT, Technical File of Electromagnetic Stimulator, Document Number: TF-C05, 2008, 241 pages. CR Technology, Technology for Health and Business for Human Being, investor relations, 2008, 21 pages.

DuoMAG Magnetic Stimulator, Alien Technik User Manuel, Jun. 26, 2012, 48 pages, Version 2.1.

Effective PEMF Magnetic Fat Reduction Slimming Body Beauty Salon Machine (PEMF Star), Wolfbeauty 1980, PEMF STAR, China, Retrieved from the Internet: (<https://www.ec21.com/product-details/Effective-PEMF-Magnetic-Fat-Reduction--8928746.html>), 2019, 5 pages.

Goetz, S.M., et al., "Coil Design for Neuromuscular Magnetic Stimulation Based on a Detailed 3-D Thigh Model," *IEEE Transactions on Magnetics*, 50(6):10, IEEE, (Jun. 2014).

Gorodnichev, R.M., "Magnetic Stimulation of Muscles as New

(56)

References Cited**OTHER PUBLICATIONS**

- Hamnegard, C.H., et al., "Quadriceps Strength Assessed by Magnetic Stimulation of the Femoral Nerve in Normal Subjects," *Clinical Physiology and Functional Imaging*, 24(5):276-280, Blackwell, England, (Sep. 2004).
- Han, T.R., et al., "Magnetic Stimulation of the Quadriceps Femoris Muscle: Comparison of Pain With Electrical Stimulation," *American Journal of Physical Medicine & Rehabilitation*, 85(7):593-599, Lippincott Williams & Wilkins, United States, (Jul. 2006).
- Increasing Physiotherapy Presence in Cosmetology, *Spa Inspirations*, Jan. 2012, pp. 34-35.
- Iskra Medical, *Magneto System*, 2012, 2 pages.
- Lampropoulou, S.I., et al., "Magnetic Versus Electrical Stimulation in the Interpolation Twitch Technique of Elbow Flexors," *Journal of Sports Science and Medicine*, 11(4):709-718, Dept. of Sports Medicine, Medical Faculty of Uludag University, Turkey (Dec. 2012).
- Lin, V.W., et al., "Functional Magnetic Stimulation for Restoring Cough in Patients With Tetraplegia," *Archives of Physical Medicine and Rehabilitation*, 79(5):517-522, W.B. Saunders, United States, (May 1998).
- Lin, V.W., et al., "Functional Magnetic Stimulation of Expiratory Muscles: a Noninvasive and New Method for Restoring Cough," *Journal of Applied Physiology* (1985), 84(4):1144-1150, American Physiological Society, United States, (Apr. 1998).
- Lin, V.W., et al., "Functional Magnetic Stimulation: A New Modality for Enhancing Systemic Fibrinolysis," *Archives of Physical Medicine and Rehabilitation* 80(5):545-550, W.B. Saunders, United States (May 1999).
- Madariaga, V.B., et al., "[Magnetic Stimulation of the Quadriceps: Analysis of 2 Stimulators Used for Diagnostic and Therapeutic Applications]," *Archivos De Bronconeumologia*, 43(7):411-417, Elsevier Espana, Spain, (Jul. 2007).
- Mag Venture, *Magnetic Stimulation, Accessories Catalogue*, Accessories Catalogue, 2011, 54 pages.
- MagVenture, *MagPro® by MagVenture®, Versatility in Magnetic Stimulation*, World Leading Transcranial Magnetic Stimulation Systems, 2011, 6 Pages.
- Neuro Star, *TMS Therapy, Bringing Hope to Patients with Depression*, 2013, 6 Pages.
- Neurosoft, Ivanovo, Since 1992, *Magnetic Stimulator, NEURO-MS, Technical Manual*, Neurosoft Ltd, Ivanovo, Russia, 2006, 67 Pages.
- Nexstim NBS System, *Navigated Brain Stimulation, Noninvasive, direct cortical mapping*, 2012, 5 Pages.
- Obsluz, N.K., *Usage Instructions, User's Manual, Device for high-induction magnetic stimulation of type designation: Saluter Moti*, 2016, 88 Pages.
- Operating Manual, *Magstim R Air-Cooled Double 70mm Coil System*, 1600-23-04, The Magstim Company Limited, 1999, 18 Pages.
- Operating Manual, *Magstim, Model 200, P/N 3001-01, Double 70mm, Remote Coil, P/N 3190-00*, The Magstim Company Limited, 2006, 32 pages.
- Operating Manual: *Magstim D70² Coil, MOP06-EN, Revision 01*, The Magstim Company Limited, Feb. 2012, 14 Pages.
- Operating Manual: *Magstim Magstim 200², MOP01-EN, Revision 01*, The Magstim Company Limited, Sep. 2011, 25 Pages.
- Operating Manual: *Magstim R, 2nd, Generation Coil Family, 3100-23-02, Magstim Coils*, The Magstim Company Limited, Nov. 2002, 14 Pages.
- Operating Manual: *Magstim R, Bistim System, P/N. 3234-23-01*, The Magstim Company Limited, Nov. 2004, 30 Pages.
- Operating Manual: *Magstim R, Coils & Accessories, 1623-23-07, Magstim Coils & Accessories*, May 2010, 24 Pages.
- Operating Manual: *Magstim, Magstim Alpha Coil Range, MOP11-EN, Revision 01*, Oct. 2012, 18 Pages.
- Operating Manual: *Magstim, Magstim Bistim², MOP02-EN, Revision*, The Magstim Company Limited, Sep. 1, 2011, 27 Pages.
- Operator'S Manual: *BTL Emsculpt*, BTL Industries Ltd, United Kingdom, 2018, 35 pages.
- Operator'S Manual: *BTL, HPM-6000U*, BTL Industries Ltd, United Kingdom, Dec. 2016, 36 pages.
- Papimi, for Scientific Research, *Pap Ion Magnetic Inductor, Presentation, Magnetotherapeutic Device*, Nov. 2009, 61 Pages.
- Podebradsky, K., et al., *Clinical study of high-inductive electromagnetic stimulator SALUS talent*, 2010, 8 pages.
- Polkey M.I., et al., "Functional Magnetic Stimulation of the Abdominal Muscles in Humans," *American Journal of Respiratory and Critical Care Medicine*, 160(2):513-522, American Thoracic Society, United States (Aug. 1999).
- Polkey, M.I., et al., "Quadriceps Strength and Fatigue Assessed by Magnetic Stimulation of the Femoral Nerve in Man," *Muscle Nerve*, 19(5):549-555, John Wiley & Sons, United States, (May 1996).
- Quick Start Manuals, *Magstim Super Rapid Plus Quick Start*, Aalto TMS Laboratory, Aalto School of Science, 2013, 7 Pages.
- Salus Talent-A, *REMED, User Guide, High Intensity Electro Magnetic Field Therapy*, 2017, 37 pages.
- Szeesi, J., et al., "A Comparison of Functional Electrical and Magnetic Stimulation for Propelled Cycling of Paretic Patients," *Archives of Physical Medicine and Rehabilitation*, 90(4):564-570, W.B. Saunders, United States, (Apr. 2009).
- Szeesi, J., et al., "Force-pain Relationship in Functional Magnetic and Electrical Stimulation of Subjects With Paresis and Preserved Sensation," *Clinical Neurophysiology*, 121(9):1589-1597, Elsevier, Netherlands, (Sep. 2010).
- Taylor, J.L., "Magnetic Muscle Stimulation Produces Fatigue Without Effort," *Journal of Applied Physiology* (1985), 103(3):733-734, American Physiological Society, United States, (Sep. 2007).
- Tesla Stym, Iskra Medical, *Tone the inner muscle with FMS Functional Magnetic Stimulation*, 2013, 4 pages.
- User Guide, *Salus Talent Pro, REMED, High Intensity Electro magnetic Field Therapy -2 Channel*, 2017, Version M-1.0.0, 45 pages.
- User Guide, *Salus Talent, REMED, High Intensity Electro magnetic Field Therapy, Version. M-1.0.0*, 2017, 40 pages.
- User Guide: *Mag Venture, Magpro family, MagPro R30, MagPro R30 with MagOption, MagPro X100, MagPro X100 with MagOption, MagPro software v.5.0, US-edition, MagPro family User Guide*, 2010, 52 Pages.
- User Manual: *Electro-magnetic Stimulator, Salus-Talent, Version 1.00, Rehabilitation Medical Company*, 2013, 34 Pages.
- User Manual: *Regenatron PRO, System Information, Regenatron PRO User Manual*, Nov. 2014, 7 Pages.
- User'S Manual: *BTL-6000, Super Inductive System Elite, BBTL Industries Ltd, United Kingdom*, Sep. 2016, 36 pages.
- Verges S., et al., "Comparison of Electrical and Magnetic Stimulation to Assess Quadriceps Muscle Function," *Journal of Applied Physiology* (1985), 106(2):701-710, American Physiological Society, United States, (Feb. 2009).
- Wasilewski, M.L., *Academy of Aesthetic and Anti-Aging Medicine, Application of magnetic fields with deep stimulation in the fight against local obesity of lower limbs*, BTL, 2012, 4 pages.
- Accent Radiofrequency System, *Operator's Manual, Alma Lasers, Wellbeing Through Technology*, 2008, 82 Pages.
- Avram, M.M and Harry, R.S., "Cryolipolysis for Subcutaneous Fat Layer Reduction," *Lasers in Surgery and Medicine*, 41(10):703-708, Wiley-Liss, United States (Dec. 2009).
- Buenos Aires, Oct. 14, 2014, *Venus Concept, Provision No. 7246*, 56 pages (With Machine Translation).
- Burge, S.M and Dawber, R.P., "Hair Follicle Destruction and Regeneration in Guinea Pig Skin After Cutaneous Freeze Injury," *Cryobiology*, 27(2):153-163, Elsevier, Netherlands (Apr. 1990).
- Chesterton, L.S., et al., "Skin Temperature Response to Cryotherapy," *Archives of Physical Medicine and Rehabilitation*, 83(4):543-549, W.B. Saunders, United States (Apr. 2002).
- CynoSure, *SculpSure™, The New Shape of Energy-Based body Contouring*, 2015, Cynosure INC, 2 pages.
- Cynosure, *Smooth Shapes XV, Now with Smoothshape petite*,

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.