IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

MOLECULAR REBAR DESIGN, LLC, AND BLACK DIAMOND STRUCTURES, LLC, Plaintiffs, v. LG ENERGY SOLUTION, LTD., Defendant.	Case No. 2:24-cv-00107-JRG **JURY TRIAL DEMANDED** (Lead Case)
MOLECULAR REBAR DESIGN, LLC, AND BLACK DIAMOND STRUCTURES, LLC, Plaintiffs, v. SAMSUNG ELECTRONICS CO., LTD, AND SAMSUNG ELECTRONICS AMERICA, INC. Defendant.	Case No. 2:24-cv-00108-JRG **JURY TRIAL DEMANDED** (Member Case)

DEFENDANTS' P.R. 3-3 INVALIDITY CONTENTIONS

Pursuant to P.R. 3-3, Defendants LG Energy Solution, Ltd. ("LGES"), Samsung Electronics Co., Ltd. ("SEC"), and Samsung Electronics America, Inc. ("SEA") (collectively "Samsung," and together with LGES "Defendants") hereby provide their Invalidity Contentions and accompanying document production with respect to the claims identified by Plaintiffs Molecular Rebar Design, LLC ("MRD"), and Black Diamond Structures, LLC ("BDS") (collectively "Plaintiffs") in their Patent Rule 3-1 Disclosures.

Defendants' Invalidity Contentions include the accompanying claim charts concerning U.S. Patent Nos. 10,153,483 (the '483 Patent), 8,808,909 (the '909 Patent), 8,968,924 (the '924 Patent), 9,636,649 (the '649 Patent), and 10,608,282 (the '282 Patent) (collectively, the "Asserted Patents").

1. ’909, ’924, and ’483 Patents

Table 1-A (’909 Patent), 1-B (’924 Patent), 1-C (’483 Patent): Prior Art Patents and Patent Applications

Patent No. or Title (Primary Inventor/Author)	Country of Origin	Date of Issue /Publication	Filing Date
101364643A (Gong)	China	Feb. 11, 2009	Jul. 18, 2008
101714627A (Chenghui)	China	May 26, 2010	Oct. 8, 2008
101847712A (Pan)	China	Sep. 29, 2010	Mar. 17, 2010
102136576A (Zhao)	China	Jul. 27, 2011	Jan. 28, 2011
102456881A (Liu)	China	May 16, 2012	Oct. 18, 2010
103311541A (Li)	China	Sep. 18, 2013	Mar. 8, 2012
12731264A (Bosnyak)	EP	Oct. 5, 2016	Jun. 21, 2012
2045213A1 (Su)	EP	Aug. 4, 2009	Apr. 10, 2007
H0714582A (Tabuchi)	Japan	Jan. 17, 1995	Jun. 24, 1993
H08124559A (Yamada)	Japan	May 17, 1996	Oct. 27, 1994
11-329413A (Ogura)	Japan	Nov. 30, 1999	Apr. 28, 1998
11-329414A (Ogura)	Japan	Nov. 30, 1999	Apr. 28, 1998
2002-063901A (Odakawa)	Japan	Feb. 28, 2002	Aug. 14, 2000
2002-510842A (Ogura)	Japan	Apr. 9, 2002	Mar. 23, 1999
2002-519826A (Ogura)	Japan	Jul. 2, 2002	Mar. 23, 1999
2003-300715A (Shoken)	Japan	Oct. 21, 2003	Nov. 14, 2002
2003-300716A (Shoken)	Japan	Oct. 21, 2003	Nov. 14, 2002
2003-505332A (Moy)	Japan	Feb. 12, 2003	Jul. 7, 2000
2004-220910A (Yusuke)	Japan	Aug. 5, 2004	Jan. 15, 2003
2004-220911A (Yusuke)	Japan	Aug. 5, 2004	Jan. 15, 2003
2004-273433A (Ohata)	Japan	Sep. 30, 2004	Jan. 23, 2004
2004-303613A (Yusuke)	Japan	Oct. 28, 2004	Mar. 31, 2003
2005-123107A (Miyayama)	Japan	May 12, 2005	Oct. 20, 2003
2005-272184A (Ohashi)	Japan	Oct. 6, 2005	Mar. 23, 2004
2007-149648A (Chelius)	Japan	Jun. 14, 2007	Sep. 28, 2006
2007-227138A (Inoue)	Japan	Sep. 6, 2007	Feb. 23, 2006
2008-016446 (Kawakami)	Japan	Jan. 24, 2008	Jun. 11, 2007
2008-044820A (Tomoko)	Japan	Feb. 28, 2008	Aug. 17, 2006
2008-270204A (Atsugi)	Japan	Nov. 6, 2008	Mar. 28, 2008
2008-517863A (Ma)	Japan	May 29, 2008	Oct. 21, 2005

Patent No. or Title (Primary Inventor/Author)	Country of Origin	Date of Issue /Publication	Filing Date
2008-534764A (El Bounia)	Japan	Aug. 28, 2008	Mar. 31, 2006
2008-542979A (Gauthier)	Japan	Nov. 27, 2008	May 5, 2006
2009-016265 (Sotowa)	Japan	Jan 12, 2009	Jul. 6, 2007
2009-263226A (Lee)	Japan	Nov. 12, 2009	Apr. 23, 2009
2009-502726A (Rowley)	Japan	Jan. 29, 2009	Jul. 13, 2006
2009-507338A (Oh)	Japan	Feb. 19, 2009	Aug. 28, 2006
2009-517517A (Bordere)	Japan	Apr. 30, 2009	Nov. 29, 2006
2010-512622A (Lam)	Japan	Apr. 22, 2010	Dec. 12, 2007
2011-503804A (Zhamu)	Japan	Jan. 27, 2011	Nov. 3, 2008
2011-514631A (Rojeski)	Japan	May 6, 2011	Feb. 25, 2009
2011-523765A (Die)	Japan	Aug. 18, 2011	May 29, 2009
2012-501515A (Plee)	Japan	Jan. 19, 2012	Aug. 20, 2009
2012-511492A (Plee)	Japan	May 24, 2012	Dec. 4, 2009
2012-512505A (Lopatin)	Japan	May 31, 2012	Dec. 9, 2009
2013-091783A (Takahashi)	Japan	May 15, 2013	Oct. 2, 2012
3403090B2 (Kawakami)	Japan	May 6, 2003	Sep. 18, 1998
4393075B2 (Watarai)	Japan	Jan. 6, 2010	Jan. 24, 2003
4641375B2 (Miyayama)	Japan	Mar. 2, 2011	Oct. 20, 2003
5671775B2 (Ryuichi)	Japan	Feb. 18, 2015	Jan. 26, 2007
5724825B2 (Yokomizo)	Japan	May 27, 2015	Oct. 27, 2011
5822424B2 (Kwon)	Japan	Nov. 24, 2015	Nov. 27, 2008
2001-0074667A (Ren)	Korea	Aug. 8, 2001	Jun. 18, 1999
2007-0064582A (Kenji)	Korea	Jun. 21, 2007	Jul. 27, 2005
2007-0102714A (Plee)	Korea	Oct. 19, 2007	Feb. 10, 2006
2010-0062297A (Lee)	Korea	Jun. 10, 2010	Dec. 2, 2008
13/529,797 (Bosnyak)	US	Dec. 11, 2018	Jun. 21, 2012
14/325,414 (Bosnyak)	US	Mar. 3, 2015	Jul. 8, 2014
61/500,560 (Bosnyak)	US	Jun. 21, 2012	Jun. 23, 2011
2004/0160156 A1 (Ohata)	US	Aug. 19, 2004	Feb. 3, 2004
2005/0006623 A1 (Wong)	US	Jan. 13, 2005	Jul. 7, 2003
2005/0029498 A1 (Elkovitch)	US	Feb. 10, 2005	Aug. 6, 2004
2005/0214196 A1 (Ohashi)	US	Sep. 29, 2005	Mar. 23, 2005
2005/0229334 A1 (Huang)	US	Oct. 20, 2005	Mar. 30, 2005
2006/0115640 A1 (Yodh)	US	Jun. 1, 2006	Jun. 6, 2005
2006/0269842 A1 (Ichinose)	US	Nov. 30, 2006	May 31, 2006

Patent No. or Title (Primary Inventor/Author)	Country of Origin	Date of Issue /Publication	Filing Date
2007/0280876 A1 (Tour)	US	Dec. 6, 2007	Aug. 6, 2007
2008/0207817 A1 (El Bounia)	US	Aug. 28, 2008	Mar. 31, 2005
2008/0031802 A1 (Ma)	US	Feb. 7, 2008	Oct. 21, 2005
2008/0318049 A1 (Hata)	US	Dec. 25, 2008	Jul. 27, 2005
2009/0035469 A1 (Sue)	US	Feb. 5, 2009	Apr. 30, 2008
2009/0042028 A1 (Kim ’028)	US	Feb. 12, 2009	Aug. 6, 2007
2009/0117463 A1 (Takezawa)	US	May 7, 2009	Oct. 30, 2008
2009/0142665 A1 (Sheem)	US	Jun. 4, 2009	Nov. 22, 2007
2009/0176924 A1 (Bordere)	US	Jul. 9, 2009	Nov. 29, 2006
2009/0181309 Al (Kwon)	US	Jul. 16. 2009	Jan. 15, 2008
2009/0225498 A1 (Lee)	US	Sep. 10, 2009	Mar. 6, 2008
2009/0246625 A1 (Lu)	US	Oct. 1, 2009	Mar. 26, 2008
2009/0269267 A1 (Lee)	US	Oct. 29, 2009	Apr. 21, 2009
2009/0308753 Al (Wong ’753)	US	Dec. 17, 2009	Apr. 21, 2008
2010/0075229 A1 (Atsuki)	US	Mar. 25, 2010	Mar. 28, 2008
2010/0124713 A1 (Farrugia)	US	May 20, 2010	Nov. 17, 2008
2010/0136431 A1 (Lee)	US	Jun. 3, 2010	Oct. 2, 2009
2010/0181200 A1 (Yang)	US	Jul. 22, 2010	Jan. 22, 2009
2010/0197832 A1 (Sun)	US	Aug. 5, 2010	Feb. 2, 2010
2010/0215945 A1 (Ota)	US	Aug. 26, 2010	Aug. 8, 2008
2011/0159366 A1 (Nakura)	US	Jan. 30, 2011	Jun. 30, 2009
2011/0294013 A1 (Bosnyak ’013)	US	Dec. 1, 2011	Dec. 19, 2008
2011/0318639 A1 (Kim ’639)	US	Dec. 29, 2011	Jun. 24, 2010
2012/0064409 A1 (Zhamu)	US	May 15, 2012	Sep. 10, 2010
2012/0058255 A1 (Gan)	US	Mar. 8, 2012	Sep. 8, 2010
2013/0281612 A1 (Bosnyak)	US	Oct. 24, 2013	Dec. 12, 2011
7,851,085 B2 (Obravac)	US	Dec. 14, 2010	Jul. 25, 2005
8,241,794 B2 (Sheem)	US	Aug. 14, 2012	Dec. 16, 2011
8,540,902 B2 (Xing)	US	Sep. 24, 2013	Jan. 13, 2010
8,574,759 B2 (Atsuki)	US	Nov. 5, 2013	Mar. 28, 2008
8,808,909 B2 (Bosnyak)	US	Aug. 19, 2014	Jun. 21, 2012
8,968,924 B2 (Bosnyak)	US	Mar. 3, 2015	Jul. 8, 2014
9,012,073 B2 (Kumar)	US	Apr. 21, 2015	Nov. 11, 2008
9,190,694 B2 (Lopez)	US	Nov. 17, 2015	Nov. 3, 2009
9,212,273 B2 (Bosnyak ’273)	US	Dec. 15, 2015	Dec. 14, 2010

Patent No. or Title (Primary Inventor/Author)	Country of Origin	Date of Issue /Publication	Filing Date
10,153,483 B2 (Bosnyak)	US	Dec. 11, 2018	Jun. 21, 2012
10,608,282 B2 (Bosnyak)	US	Mar. 31, 2020	Jan. 26, 2018
2001/007694 A1 (Niu)	WO	Feb. 1, 2001	Jul. 21, 1999
2006/135439 A2 (Ma)	WO	Dec. 21, 2006	Oct. 22, 2004
2008/002317 A1 (Rowley)	WO	Jan. 3, 2008	Aug. 4, 2005
2009/124895 Al (Roth)	WO	Oct. 15, 2009	Apr. 10, 2008
2009/148971 A2 (Dai)	WO	Dec. 10, 2009	May 29, 2009
2010/117392 A1 (Bosnyak)	WO	Oct. 14, 2010	Dec. 18, 2009
2011/056290 A2 (Peng)	WO	May 12, 2011	Sep. 3, 2010
2011/163129 A2 (Swogger ’129)	WO	Dec. 29, 2011	Jun. 20, 2011
2012/177864 A1 (Bosnyak ’864)	WO	Dec. 27, 2012	Jun. 23, 2011

Table 2-A (’909 Patent), 2-B (’924 Patent), 2-C (’483 Patent): Printed Publications

Title/Author	Date
Adhesion and Reinforcement of CNT-fluoroelastomers Composite for Oilfield Applications, Journal of The Adhesion Society of Japan (Ito)	2011
Aggressively Oxidized Ultra-Short Single-Walled Carbon Nanotubes Having Oxidized Sidewalls, Chem. Mater. 2009 (Price)	Aug. 10, 2009
A Lithium-Ion Cell Based On A Sodium Insertion Material, Electrochemical And Solid-State Letters, 9 (4) (Barker)	Feb. 8, 2006
A Multifunctional 3.5 V Iron-Based Phosphate Cathode For Rechargeable Batteries, Nature Materials 6 (Nazar 2007)	Sep. 9, 2007
A Porous Lifepo4 And Carbon Nanotube Composite, Chemical Communications 46, (Zhou)	Jul. 9, 2010
Attachment Of Metal Oxide Nanoparticles On Carbon Nanotubes With Different Oxidation Levels, Advanced Materials Research, Vols. 55-57 (Hsieh)	Aug. 22, 2008
Carbon Nanotube-Amorphous Fepo4 Core–Shell Nanowires As Cathode Material For Li Ion Batteries, Chem. Commun., 2010 (Kim 2010)	Aug. 23, 2010
Carbon Nanotubes As A Conductive Additive In Lifepo4 Cathode Material For Lithium-Ion Batteries, ISSN 1023_1935, Russian Journal Of Electrochemistry, 2010, Vol. 46 (Huang)	2010
Carbon Nanotube Fiber, Science Popularization Online (Wang)	May 12, 2010
Carbon Nanotube–Nanocrystal Heterostructures, Chemical Society Reviews (Peng)	Feb. 13, 2009
Carbon Nanotube-Nanoparticle Hybrid Structures (Chen)	Mar. 1, 2010

Title/Author	Date
Carbon nanotubes grown in situ on graphene nanosheets as superior anodes for Li-ion batteries (Chen)	2011
Carbon Nanotube Wiring Of Electrodes For High-Rate Lithium Batteries Using An Imidazolium-Based Ionic Liquid Precursor As Dispersant And Binder: A Case Study On Iron Fluoride Nanoparticles (Li 2011)	Mar. 04, 2011
Chemical Oxidation Of Multiwalled Carbon Nanotubes, Carbon 46 (2008) (Datsyuk)	Feb. 21, 2008
Comparison Of Metal Ion Dissolutions From Lithium Ion Battery Cathodes, Journal Of The Electrochemical Society, 153 (Choi)	Jul. 20, 2006
Crystal-Amorphous Phase Transition Induced By Ball-Milling In Silicon, Journal Of The Less Common Metals 157 (Gaffet)	Jun. 2, 1989
Crystal Structure And Electrochemical Properties Of A2MPO4F Fluorophsphates (A = Na, Li; M = Fe, Mn, Co, Ni, Chem. Mater, 22 (Ellis)	Nov. 13, 2009
Dispersion of Carbon Nanotubes in Liquids, Journal of Science and Technology Vol. 24 (Hilding)	2003
Dispersity and Stability Measurements of Functionalized Multiwalled Carbon Nanotubes in Organic Solvents, Current Applied Physics (Kim)	2009
Effect Of Carbon Nanotube On The Electrochemical Performance Of C-Lifepo4/Graphite Battery, Journal Of Power Sources 184 (Liu)	Mar. 16, 2008
Effect of multi-walled carbon nanotube aspect ratio on mechanical and electrical properties of epoxy-based nanocomposites, Polymer Testing 30 (Ayatollahi)	2011
Effects of ball-milling on lithium insertion into multi-walled carbon nanotubes synthesized by thermal chemical vapour deposition, Journal of Power Sources 157 (Eom)	2006
Effects Of Carbonaceous Materials On The Physical And Electrochemical Performance Of A Lifepo4 Cathode For Lithium-Ion Batteries (Kang)	Jun. 3, 2011
Effects of Oxidation by Hydrogen Peroxide on the Structures of Multiwalled Carbon Nanotubes, Ind. Eng. Chem. Res. 2006 (Peng)	Aug. 18, 2006
Electrically Conductive Polymer Nanocomposites Of Polymethylmethacrylate And Carbon Nanofibers Prepared By Chaotic Mixing, Composites: Part A (Jimenez)	Jun. 19, 2006
Electrochemical Performance Of Lifepo4 Cathode Material Coated With Multi-Wall Carbon Nanotubes, Materials Chemistry And Physics 118 (Xu)	Jul. 3, 2009
Electronic, Optical, And Optoelectronic Applications Of Carbon Nanotubes (Hart)	Jun. 2007
Energy storage/conversion device based on carbon nanotube composite (Jeong)	Dec. 2007
Enhanced Capacity And Rate Capability Of Carbon Nanotube Based Anodes With Titanium Contacts For Lithium Ion Batteries (Dileo)	Sep. 21, 2010
Enhanced Photocatalytic Activity Of Mesoporous Tio2 Aggregates By Embedding Carbon Nanotubes As Electron-Transfer Channel, Chem. Phys. 13 (Yu)	2011
Enhancing The Power Of Batteries, MIT News (Chandler)	Jun. 20, 2010

Title/Author	Date
Fabrication Of Fef3 Nanoflowers On CNT Branches And Their Application To High Power Lithium Rechargeable Batteries (Kim 2010)	Oct. 15, 2010
Flexible Carbon Nanotube–Cu 2 O Hybrid Electrodes For Li-Ion Batteries, Small 2011 (Goyal)	May 16, 2011
Functionalization Of Single-Walled Carbon Nanotubes, Chem. Int. Ed. 2002 (Hirsch)	2002
Green Energy Storage Materials: Nanostructured Tio2 And Snbased Anodes For Lithium-Ion Batteries, Energy & Environmental Sciences 2 (Deng)	Apr. 21, 2009
High-Power Lithium Batteries From Functionalized Carbon-Nanotube Electrodes, Nature Nanotechnology (Lee)	Jun. 20, 2010
Hydrothermal Realization Of High-Power Nanocomposite Cathodes For Lithium Ion Batteries (Bülow)	2012
Hydrothermal Synthesis Of Carbon Nanotube/Cobalt Oxide Core-Shell One-Dimensional Nanocomposite And Application As An Anode Material For Lithium-Ion Batteries, Electrochemistry Communications 11 (Wang)	Dec. 24, 2008
Hydrothermal Synthesis Of Lithium Iron Phosphate, Electrochemistry Communications 8 (Chen)	Apr. 17, 2006
Impact Of Carbon Structure And Morphology On The Electrochemical Performance Of Lifepo4/C Composites, Springer, J Solid State Electrochem (2008) (Doeff)	Sep. 19, 2007
Improvement of Electrochemical Performance of LiMn2O4 Composite Cathode by ox-MWCNT addition for Li-ion Battery, J. Braz. Chem. Soc., Vol. 19 (Liu 2008)	2008
Incorporation Of MWCNTs Into Leaf-Like Cuo Nanoplates For Superior Reversible Li-Ion Storage, Electrochemistry Communications 12 (Xiang)	Jun. 2, 2010
Individual Single-Walled Nanotubes And Hydrogels Made By Oxidative Exfoliation Of Carbon Nanotube Ropes, JACS (Kovtyukhova)	Jul. 17, 2003
Interaction Models For Effective Thermal And Electric Conductivities Of Carbon Nanotube Composites, Acta Mechanica Solida Sinica, Vol. 22 (Deng)	Feb. 1, 2009
Interim evaluation report on "Development of new nanoelectronics semiconductor materials and new nanoelectronic device technologies" (Interim Report)	Oct. 2009
Labeling The Defects Of Single-Walled Carbon Nanotubes Using Titanium Dioxide Nanoparticles, Journal Of Physical Chemistry B 2003, 107 (X. Li)	Feb. 21, 2003
Layer-By-Layer Assembly Of All Carbon Nanotube Ultrathin Films For Electrochemical Applications, JACS (Lee)	Dec. 23, 2008
Long-Time Low-Impact Ball Milling Of Multi-Wall Carbon Nanotubes, Carbon 43 (Kukovecz)	Jan. 6, 2005
Molten Salt Synthesis Of Tin Oxide Nanorods: Morphological And Electrochemical Features, J. Phys. Chem. B, Vol. 108, No. 46 (Wang)	Oct. 20, 2004
Monitoring Oxidation of Multiwalled Carbon Nanotubes by Raman Spectroscopy, Journal of Raman Spectroscopy Vol. 38 (Osswald)	Apr. 11, 2007

Title/Author	Date
Multi-Step Purification Of Carbon Nanotubes, Carbon 40 (Hou)	2002
Multiwalled Carbon Nanotubes Functionalized By Carboxylic Groups: Activation Of Tio2 (Anatase) And Phosphate Olivines (Limnpo4; Lifepo4) For Electrochemical Li-Storage, Journal Of Power Sources 195 (2010) (Kavan)	Mar. 12, 2010
Nanoflaky Mno2/Carbon Nanotube Nanocomposites As Anode Materials For Lithium-Ion Batteries, Journal Of Materials Chemistry (Xia)	May 24, 2010
Nanosized Li4Ti5O12 Prepared By Molten Salt Method As An Electrode Material For Hybrid Electrochemical Supercapacitors, Journal Of The Electrochemical Society (Cheng)	Jun. 5, 2006
Preparation and Characterization of Conductive Carbon Nanotube-Polystyrene Nanocomposites using Latex Technology, Comp. Sci. and Tech. (Wu)	Aug. 2008
Preparation Of Colloidal Carbon Nanotube Dispersions And Their Characterisation Using A Disc Centrifuge, Carbon (Nadler)	Jun. 6, 2008
Preparation Of Nanocomposites Of Metals, Metal Oxides, And Carbon Nanotubes Via Self-Assembly, JACS (Li 2007)	Jul. 6, 2007
Preparation Of Single-Walled Carbon Nanotube/Silicon Composites And Their Lithium Storage Properties, Applied Materials & Interfaces 3 (Eom)	Mar. 24, 2011
Sol–Gel Preparation And Electrochemical Properties Of Na3V2(PO4)2F3/C Composite Cathode Material For Lithium Ion Batteries, Journal Of Alloys And Compounds 478 (Jiang)	Dec. 7, 2008
Sonochemical Oxidation Of Multiwalled Carbon Nanotubes, Langmuir 2005 (Xing)	Mar. 7, 2005
Structure And Electrochemical Performance Of Nanostructured Fe_3O_4/Carbon Nanotube Composites As Anodes For Lithium Ion Batteries, Electrochimica Acta (He)	Oct. 13, 2009
Study Of Multi-Walled Carbon Nanotubes For Lithium-Ion Battery Electrodes, Journal Of Power Sources 196 (Varzi)	Nov. 27, 2010
Study on the negative electrode of tin-based alloy system for lithium-ion batteries (Zhao)	Dec. 2006
Surface And Structural Characterization Of Multi-Walled Carbon Nanotubes Following Different Oxidative Treatments, Carbon 49 (Wepasnick)	Aug. 18, 2010
Surface Chemical Properties of Cup-Stacked-Type Carbon Nanotubes, TANSO (Toshinari)	2010
Surface Modified Multi-Walled Carbon Nanotubes In CNT/Epoxy-Composites (Gojny)	Jan. 2, 2003
The Effect Of Cr Doping On Li Ion Diffusion In Lifepo4 From First Principles Investigations And Monte Carlo Simulations, Condens. Matter 16 (Ouyang)	Mar. 19, 2004
The Effect Of The Aspect Ratio Of Carbon Nanotubes On Their Effective Reinforcement Modulus In An Epoxy Matrix, Composites Science And Technology 71 (Martone)	Apr. 9, 2011

Title/Author	Date
The Nanocomposites Of Carbon Nanotube With Sb And Snsb0.5 As Li-Ion Battery Anodes, Carbon 41 (Chen 2002)	Nov. 26, 2002
Theoretical Evaluation of Stiffness Degradation Factors in Carbon-Nanotube Composites (Ono)	2008
The Preparation And Electrochemical Performances Of Lifepo4-Multiwalled Nanotubes Composite Cathode Materials For Lithium Ion Batteries, Materials Chemistry And Physics 121 (Feng)	Jan. 21, 2010
The Structure And Property Characteristics Of Amorphous/Nanocrystalline Silicon Produced By Ball Milling, Journal Of Materials Research 10 (Shen)	Jan. 1995
Tio2 Rutile—An Alternative Anode Material For Safe Lithium-Ion Batteries, Journal Of Power Sources 106 (Pfanzelt)	Oct. 14, 2010
Chemical bond, Wikipedia: The Free Encyclopedia, https://en.wikipedia.org/wiki/Chemical_bond	

Table 3-A ('909 Patent), 3-B ('924 Patent), 3-C ('483 Patent):
Prior Art Systems and Inventions

Name of System or Invention	Date of First Known Sale / Offer for Sale / Public Use / Known by Others
Sony's Nexelion	Feb. 2005
Sony's Cylindrical Lithium Ion Secondary battery (G8 Series) (e.g., 18650G8)	Dec. 2004
Sony's Lithium Ion Polymer Secondary Battery (A8 Series) (e.g., 383450A8)	Dec. 2004
Sony's Lithium Ion Polymer Secondary Battery (S Pack)	Dec. 2004
Sony's Cylindrical Lithium Ion Secondary battery (V Series) (e.g., 18650V)	Dec. 2004
Sony's Cylindrical Lithium Ion Secondary battery (VT Series) (e.g., 26650VT)	Dec. 2004
Sony's Fortelion series	Jun. 2009
LEV50 Lithium-ion battery	Dec. 2007
Sanyo's CR-V3	Aug. 2001
Sanyo 18650 battery	Sep. 2005
Sanyo UR18650	Sep. 2005
Sony NP-F9 series	2008
AESC L3-10	May 2008

For each of the prior art devices identified above, Defendants have listed and produced documents as evidence of the relevant features and functionality to the extent that they are presently available. Defendants have obtained or are in the process of attempting to obtain the identified devices and will make them available for inspection to the extent they are obtained. To