

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS
AMERICA, INC.,
Petitioner,
v.
MOLECULAR REBAR DESIGN LLC,
Patent Owner.

Case IPR2025-00356

Patent No. 8,808,909

NOTICE OF FILING OF CORRECTED EXHIBIT

EXHIBITS¹

Ex-1001	U.S. Patent No. 8,808,909 (“the ’909 Patent”)
Ex-1002	Excerpts from Prosecution History of the ’909 Patent (“the Prosecution History”)
Ex-1003	Declaration of Dr. Yu Zhu
Ex-1004	U.S. Patent Pub. No. 2004/0160156 (“Ohata”)
Ex-1005	“Multi-walled carbon nanotubes functionalized by carboxylic groups: Activation of TiO ₂ (anatase) and phosphate olivines (LiMnPO ₄ ; LiFePO ₄) for electrochemical Li-storage.” Ladislav Kavan et al. Journal of Power Sources 195 (2010) 5360-5369 (“Kavan”)
Ex-1006	U.S. Patent Pub. No. 2010/0136431 (“Lee”)
Ex-1007	U.S. Patent Pub. No. 2010/0124713 (“Farrugia”)
Ex-1008	U.S. Patent Pub. No. 2012/0064409 (“Zhamu”)
Ex-1009	“Chemical oxidation of multiwalled carbon nanotubes.” V. Datsyuk et al. Carbon 46 (2008) 833-840 (“Datsyuk”)
Ex-1010	“Surface and structural characterization of multi-walled carbon nanotubes following different oxidative treatments.” Kevin A. Wepasnick, et al. Carbon 49 (2011) 24-36 (“Wepasnick”)
Ex-1011-1013	Reserved
Ex-1014	“Surface modified multi-walled carbon nanotubes in CNT/epoxy-composites.” Florian H. Gojny, Jacek Nastalczyk, Zbigniew

¹ For purposes of this petition, the exhibits follow the sequence and numbering of the exhibits in *LG Energy Solution, Ltd. v. Molecular Rebar Design, LLC*, IPR2024-01006, Paper 2 (P.T.A.B. June 7, 2024) except for their prefixes (e.g., “Ex” here and “LGES” in IPR2024-01006).

- Roslaniec, Karl Schulte. Chemical Physics Letters 370 (2003) 820–824 (“Gojny”)
- Ex-1015 “Sonochemical Oxidation of Multiwalled Carbon Nanotubes.” Yangchuan Xing, Liang Li, Charles C. Chusuei, and Robert V. Hull. Langmuir 2005, 21, 4185-4190 (“Xing”)
- Ex-1016-1024 Reserved
- Ex-1025 “The structure and property characteristics of amorphous/nanocrystalline silicon produced by ball milling.” T.D. Shen, et al. Journal of Materials Research 10 (1995), 139-149 (“Shen”)
- Ex-1026 “Crystal-amorphous phase transition induced by ball-milling in silicon.” E. Gaffet, M. Harmelin. Journal of the Less Common Metals 157 (1990), 201-222 (“Gaffet”)
- Ex-1027 U.S. Patent No. 9,012,073 (“Kumar”)
- Ex-1028 U.S. Patent No. 9,190,694 (“Lopez”)
- Ex-1029 U.S. Patent No. 7,851,085 (“Obravac”)
- Ex-1030 “Labeling the Defects of Single-Walled Carbon Nanotubes Using Titanium Dioxide Nanoparticles.” Xiaohong Li, Jiali Niu, Jin Zhang, Hulin Li, and Zhongfan Liu. The Journal of Physical Chemistry B 107 (2003) 2453-2458 (“X. Li”)
- Ex-1031 Excerpts from Prosecution History of EP2724403B1
- Ex-1032 U.S. Patent No. 8,241,794 (“Sheem”)
- Ex-1033 “TiO₂ rutile—An alternative anode material for safe lithium-ion batteries.” M. Pfanztelt, P. Kubiak. Journal of Power Sources 106 (2011) 6815-6821 (“Pfanztelt”)
- Ex-1034 U.S. Patent Pub. No. 2011/0159366A1 (“Nakura”)
- Ex-1035 U.S. Patent Pub. No. 2009/0117463A1 (“Takezawa”)

- Ex-1036 Reserved
- Ex-1037 “Preparation of Nanocomposites of Metals, Metal Oxides, and Carbon Nanotubes via Self-Assembly.” Jing Li, Songbai Tang, Li Lu, and Hua Chun Zeng. *Journal of the American Chemical Society* 129 (2007) 9401-9409 (“J. Li”)
- Ex-1038 “Enhanced photocatalytic activity of mesoporous TiO₂ aggregates by embedding carbon nanotubes as electron-transfer channel.” J. Yu, T. Ma, S. Liu. *Phys. Chem. Chem. Phys.* 13 (2011) 3491–3501 (“Yu”)
- Ex-1039 “Long-time low-impact ball milling of multi-wall carbon nanotubes.” A. Kukovecz, T. Kanyo, Z. Konya, I. Kiricsi. *Carbon* 43 (2005) 994-1000. (“Kukovecz”)
- Ex-1040 “Green energy storage materials: Nanostructured TiO₂ and Sn-based anodes for lithium-ion batteries.” D. Deng, M. Kim, J. Lee, J. Cho. *Energy & Environmental Sciences* 2 (2009) 818-837 (“Deng”)
- Ex-1041 “Hydrothermal synthesis of lithium iron phosphate.” J. Chen, M. Whittingham. *Electrochemistry Communications* 8 (2006) 855-858 (“Chen”)
- Ex-1042 “The preparation and electrochemical performances of LiFePO₄-multiwalled nanotubes composite cathode materials for lithium ion batteries.” Y. Feng. *Materials Chemistry and Physics* 121 (2010) 302-307 (“Feng”)
- Ex-1043 “Preparation of Single-Walled Carbon Nanotube/Silicon Composites and Their Lithium Storage Properties.” J-Y. Eom, H-S. Kwon. *Applied Materials & Interfaces* 3 (2011) 1015-1021 (“Eom”)
- Ex-1044 A. Hirsch. “Functionalization of Single-Walled Carbon Nanotubes” *Angew. Chem. Int. Ed.* 2002, 41, No. 11, 1853-1859 (“Hirsch”)
- Ex-1045-1049 Reserved

- Ex-1050 *Molecular Rebar Design, LLC, and Black Diamond Structures, LLC v. LG Energy Solution, Ltd.*, Plaintiffs’ Disclosure of Asserted Claims and Infringement, 2:24-cv-00107-JRG
- Ex-1051 Declaration of June Ann Munford (Kavan)
- Ex-1052 Declaration of June Ann Munford (Wepasnick)
- Ex-1053 *Molecular Rebar Design, LLC, et al. v. LG Energy Solution, Ltd.*, Sample Docket Control Order, 2:24-cv-00107-JRG
- Ex-1054 Proposed Protective Order
- Ex-1055 Redline Comparison of Proposed Protective Order vs. Board’s Default Protective Order
- Ex-1056 Redacted Version of Sealed Petition

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Petitioner”) submits this Notice of Filing of Corrected Exhibit in response to the Notice of Filing Date Accorded to Petition and Time for Filing Patent Owner Preliminary Response (“Notice of Filing Date Accorded”) dated January 23, 2025. *See* Paper No. 8. The Notice of Filing Date Accorded instructs Petitioner to file a corrected Exhibit 1052 within five business days. *Id.* at 1. Petitioner is timely submitting herewith a corrected Exhibit 1052.

Petitioner understands that originally filed Exhibit 1052 will be expunged from the record. *Id.*

Dated: January 24, 2025

Respectfully Submitted,

/Andrew R. Sommer/

Andrew R. Sommer
Reg. No. 53,932

CERTIFICATE OF SERVICE

The undersigned certifies that on January 24, 2025, I caused a true and correct copy of Ex-1052 and this Notice of Filing of Corrected Exhibits on the Patent Owner at the addresses provided in Patent Owner's Mandatory Notices:

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