

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SOLUS ADVANCED MATERIALS CO., LTD.,
Petitioner,

v.

SK NEXILIS CO., LTD.,
Patent Owner.

Case IPR2025-00005
Patent 9,457,541

PETITIONER'S SUPPLEMENTAL BRIEF

EXHIBITS

SOLUS-1001	U.S. Patent No. 9,457,541 (“the ’541 Patent”)
SOLUS-1002	U.S. Patent No. 9,457,541 File History
SOLUS-1003	Declaration of Dr. Jack Josefowicz
SOLUS-1004	Barclay, William R. et al., <i>Electroplating</i> —A Treatise on the Electro-Deposition of Metals with a Chapter on Metal-Colouring and Bronzing, London-Edward-Arnold, 1912
SOLUS-1005	Swantson, Howard and Tatge, Eleanor, <i>Standard X-ray Diffraction Powder Patterns</i> , National Bureau of Standards, Circular 539, Vol. 1, June 15, 1953.
SOLUS-1006	Reserved
SOLUS-1007	U.S. Patent Application Publication No. 2009/0061326 (“Hirose”)
SOLUS-1008	Japanese Patent Application Publication No. JP 2003051340 (“Hara”)
SOLUS-1009	Translation of SOLUS-1008
SOLUS-1010	U.S. Patent Application Publication No. 2004/0029006 (“Otsuka”)
SOLUS-1011	U.S. Patent Application Publication No. 2010/0136434 (“Hanafusa”)
SOLUS-1012	U.S. Patent Application Publication No. 2010/0038115 (“Matsuda”) (now US Patent 8,722,199 from Japanese Patent Application Publications No. JP2006-009321 and JP2005-104540)

SOLUS-1013	Ye, Xingpu, et al. 1992 “Role of Overpotential on Texture, Morphology and Ductility of Electrodeposited Copper Foils for Printed Circuit board Applications”, <i>J. Electrochem. Soc.</i> , Vol. 139, No. 6, 1592 (June 1992) (“Ye”)
SOLUS-1014	Chiang, S.K. DiFranco, D.F. and Pucci, D.G. (1995), “High Strength, Low Profile Copper Foil for High Performance PCBs,” <i>Circuit World</i> Vol. 21 No. 3, pp. 56-59. (“Chiang”)
SOLUS-1015	Reserved
SOLUS-1016	Chinese Patent Publication CN1710737A (“Zhang”), published December 21, 2005
SOLUS-1017	Translation of SOLUS-1016
SOLUS-1018	Kim, Jongsoo and Kim, Heesan, <i>Corrosion Science and Technology</i> , Vol. 6, No. 4, pp. 154-158 (2007). (“Kim”)
SOLUS-1019 U.S.	Patent No. 4,695,348 (“Battey”)
SOLUS-1020 U.S.	Patent No. 6,451,441 (“Nishimoto”)
SOLUS-1021 U.S.	Patent Application Publication No. 2004/0149583 (“Kumagai”)
SOLUS-1022 U.S.	Patent Application Publication No. 2009/0047539 (“Dobashi”)
SOLUS-1023 U.S.	Patent Application Publication No. 2006/0191798 (“Sano”)
SOLUS-1024	Reserved
SOLUS-1025	Frederick A. Lowenheim, <i>Modern Electroplating</i> , John Wiley & Sons, 1974 (“Lowenheim”)

SOLUS-1026	Reserved
SOLUS-1027	Japanese Patent Pub. No. JP 2007/217787 (“Matsuda-787”)
SOLUS-1028	Translation of SOLUS-1027
SOLUS-1029	<i>Surface roughness – Definitions and designation</i> , Japanese Industrial Standard (JIS) B 0601-1994 (“JIS Standard 1994”)
SOLUS-1030	<i>Geometrical Product Specifications (GPS) – Surface texture: Profile method – Terms, definitions and surface texture parameters</i> (“JIS Standard 2001”)
SOLUS-1031	<i>Operating Instructions MarSurf M 300 + RD 18</i> , Mahr GmbH, 2008 (“MarSurf M300 instruction manual”)
SOLUS-1032	<i>Surface Roughness Measurement-Parameters</i> , Olympus, https://www.olympus-ims.com/en/metrology/surfaceroughness-measurement-portal/parameters/ (“Olympus”)
SOLUS-1033-1035	Reserved
SOLUS-1036	Declaration of June Ann Munford
SOLUS-1037	<i>SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.</i> , Case 2-23-cv-00539 (EDTX), First Amended Complaint
SOLUS-1038	<i>SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.</i> , Case 2-23-cv-00539 (EDTX), Proposed Docket Control Order
SOLUS-1039	<i>SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.</i> , Case 2-23-cv-00539 (EDTX), Opposed Motion of Defendant to Transfer Venue

SOLUS-1040	Board Email of March 17, 2025 authorizing Petitioner's Reply
SOLUS-1041	Federal Court Management Statistics (Dec. 31, 2024)
SOLUS-1042	Stipulation Letter of March 24, 2025
SOLUS-1043	Updated Stipulation Letter of May 1, 2025

The facts here differ significantly and materially from *Motorola*, thus strongly weighing against discretionary denial in view of the *Fintiv* factors. *Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 (PTAB March 28, 2025).

First, in addition to the *Sotera* stipulation of March 24, 2025 (SOLUS-1042), it is further stipulated that, should this Petition be granted, Petitioner will not pursue in district court litigation any invalidity assertions based on combinations of prior art patents or printed publications with “unpublished system prior art.” *Motorola*, 3-4; SOLUS-1043. Thus, the updated stipulation moots not only “combinations of the prior art asserted in these proceedings with unpublished system prior art” referenced in the *Motorola* Director Review decision but also combinations of **any** prior art patents or printed publications with such system art. *Motorola*, 4.

Second, in contrast to *Motorola* where “the parties had ... served opening and rebuttal expert reports ... filed claim construction briefs” and “[t]he court also had held a claim construction hearing and construed the disputed claim terms,” none of those milestones have occurred in the district court case here. *Motorola*, 3. Expert reports are not due until this summer, and no *Markman* hearing has been held.

Lastly, it is noted that this Petition was filed ***within just four months*** of PO’s assertion of the ’541 Patent for the very first time. Petitioner’s Reply, 1.

For at least these reasons, this IPR proceeding serves as a true alternative to the district court case, and discretionary denial is not warranted.

Respectfully submitted,

Dated: May 1, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e), the undersigned certifies that on May 1, 2025, a complete and entire copy of this Petitioner's Supplemental Brief and Exhibit 1043 were provided via email to the Patent Owner by serving the email correspondence addresses of record as follows:

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