

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PASCAL TECHNOLOGIES,
Petitioner

v.

CAMBRIDGE ENTERPRISE LIMITED, UNIVERSITAT DE BARCELONA,
AND UNIVERSITAT POLITÈCNICA DE CATALUNYA,
Patent Owner

Case No. IPR2024-01235
U.S. Patent No. 11,230,656

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

The Institution Decision should be affirmed and Patent Owner's request for Director Review denied. First, Patent Owner's deposition dispute is both unsupported and moot. Petitioner did not refuse to make Dr. Dincă available for deposition in the United States and will offer a deposition as the Board specifically directs. Second, Patent Owner's printed publication arguments lack merit. The record includes substantial evidence establishing a reasonable likelihood that the relevant references are printed publications.

I. PATENT OWNER'S DEPOSITION DISPUTE IS MANUFACTURED AND MOOT.

The alleged deposition dispute is both moot and factually unsupported. Uncompelled deposition testimony outside the United States is permitted under two circumstances: (1) "upon agreement of the parties" or (2) "as the Board specifically directs." 37 C.F.R. § 42.53(b)(3). Furthermore, there is no requirement that depositions be conducted in-person.

Petitioner's expert, Dr. Dincă, is currently on sabbatical in Spain. Per the Board's guidance that parties "are encouraged to meet and confer regarding appropriate means to conduct depositions consistent with their needs,"¹ Petitioner asked Patent Owner to agree to a remote video deposition. Patent Owner refused and, when asked why, also refused to provide any basis. Rather than wait for the

¹ PTAB Operational FAQs ("PTAB FAQs"), No. 9, available at <https://www.uspto.gov/patents/ptab/resources/ptab-operational-faqs-may-29>.

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Board to address Petitioner's then-forthcoming request to direct that Dr. Dincă's deposition take place remotely, Patent Owner unilaterally concluded that Petitioner refused to provide Dr. Dincă for deposition in the United States. However, the period for Dr. Dincă's cross-examination has not begun, let alone passed. *See* 37 C.F.R. 42.53(d)(2) ("Cross-examination should ordinarily take place after any supplemental evidence relating to the direct testimony"² and "more than a week before the filing date for any paper in which the cross-examination testimony is expected to be used."). Patent Owner's response is not due until June 17, 2025. Petitioner has been diligent in attempting to schedule Dr. Dincă's deposition, using the procedures available to it under the Board's rules. There is nothing for the Director to review about this ongoing process, and Patent Owner provides no basis for disturbing the Board's decision granting institution.

To be clear, if the Board does not "specifically direct" a remote deposition by videoconference, Dr. Dincă will be available for deposition in the United States before June 10, 2025. As Patent Owner's counsel admitted during a meet and confer, by offering Dr. Dincă in the United States for deposition, Petitioner moots this basis for revisiting the Institution Decision.

II. PATENT OWNER'S SUFFICIENCY ARGUMENT WAS PROPERLY DISMISSED BY THE BOARD.

² Patent Owner filed objections to Dr. Dincă's testimony on April 7, 2025. *See* Paper 11.

Institution of *inter partes* review is proper when the evidence establishes there is a reasonable likelihood the prior art references—in this case, scientific papers from established journals—were printed publications. *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13, 21 (PTAB Dec. 20, 2019). That threshold is met here. Patent Owner's arguments for Director Review were addressed and properly rejected by the Board based on evidence in the Petition, the exhibits cited therein, *and the challenged '656 Patent itself*. The Board's decision instituting *inter partes* review should be affirmed, and Director Review denied.

Consistent with the Board's decision granting institution, the Petition establishes a reasonable likelihood that Xie, Mañosa, Patel, and Tamarit are printed publications.³ First, as noted by the Board and conspicuously omitted from Patent Owner's request, the '656 Patent itself *admits* that Patel and Xie discuss "materials that have previously been described for use in barocaloric cooling." Ex. 1001, 5:26-32, 5:37-46, 5:52-64; IPR2024-01235, Paper 1 ("Petition"), 15, 24-25. The '656 Patent lists Xie under "Other Publications" with the following dates: "Sep. 26, 2016 (Year: 2016)." Ex. 1001, 2; IPR2024-01235, 20. Thus, the '656 Patent establishes a reasonable likelihood that Patel and Xie are prior art printed publications. Indeed, unlike the reference in *Affordable Drugs*, IPR2015-01076, Paper 33 at 6 (PTAB

³ Patent Owner specifically targets Xie in its arguments because the Board specifically found a reasonable likelihood that Mañosa, Patel, and Tamarit were printed publications. IPR2024-01235, Paper 8 ("Decision"), 21-24.

2015), the '656 Patent substantively discusses the disclosures in Xie (*id.*, 5:52-64) and Patel (*id.*, 5:38-46) and attempts to “incorporate[] by reference in their entirety” these references (*id.*, 20:21-38; Petition, 16 n.5).

While the panel leaves open the issue of “whether Xie constitutes a printed publication” for trial, (Decision, 21), that does not diminish the evidence relied upon by the Board establishing a reasonable likelihood that Xie is a printed publication, which is all that is required at this stage. Petitioner plans to address the issues raised as the panel suggests: by “mov[ing] to submit such evidence through the supplemental information process (37 C.F.R. § 42.23).” Decision, 20 n.5.

Second, the Board correctly found that the prior art references Mañosa, Patel, and Tamarit each contain strong indicia on their face establishing a reasonable likelihood that they qualify as printed publications. Decision, 21-24. Mañosa, Patel, and Tamarit include “printed dates and stamps” that are “part of the totality of the evidence” evidencing these references were publicly available. *Hulu*, Paper 29, 18. The Decision identifies these strong indicia and concludes that, like the Dougherty reference in *Hulu*, there is a reasonable likelihood that Mañosa, Patel, and Tamarit are printed publications that support *inter partes* review. Decision, 21-24.

Specifically, every page of Mañosa indicates that it was “Published on 29 January 2013” as a “Feature Article” in “Journal of Materials Chemistry A.” Ex. 1007, 1-12 (top left and right corners); Decision, 21-23; Petition, 27. Additionally,

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every page includes the words "View Article Online" and "RSCPublishing"; and a
citation to "J. Mater. Chem. A, 2013, 1, 4925." Ex. 1007, 1.

In Patel, every substantive page includes "© 2016 AIP Publishing LLC" and
"Thu, 18 Feb 2016" in the bottom margin. Ex. 1008. Each page also states Patel was
"published online 16 February 2016" in "APPLIED PHYSICS LETTERS 108,
072903 (2016)." Ex. 1008, 1; Decision, 23; Petition, 30.

Tamarit was published, per its first page, in "Mol. Cryst. Liq. Cryst., 1994,
Vol. 250, pp. 347–358," copyrighted the same year ("© 1994 Gordon and Breach
Science Publishers S.A."), and "Printed in the United States of America." Ex. 1021,
2; Decision, 24. Tamarit was also "Published online: 24 Sep 2006" at "ISSN: 1058-
725X (Print) (Online) Journal homepage www.tandfonline.com/journals/gmcl19." Ex. 1021, 1; Decision, 24; Petition, 36.

The evidence of record includes strong indicia showing at least a reasonable
likelihood the prior art references were printed publications. In contrast, Patent
Owner offered *no contrary evidence* that Xie, Mañosa, Patel, and Tamarit were
unavailable. Decision, 22-24; *see generally* IPR2024-01235, Paper 6.

Patent Owner's request for Director Review should be denied.

April 15, 2025

Respectfully submitted,

/Jeffrey Johnson/
Jeffrey Johnson (Reg. No. 53,078)

CERTIFICATE OF SERVICE

The undersigned hereby certifies on this 15th day of April, 2025, that true and correct copies of the foregoing Authorized Response to Director Review Request were served in their entirety on the following parties via email on Counsel for Patent Owner at the email addresses as indicated in their Mandatory Notices under 37 C.F.R. § 42.8:

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