

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WESTERN DIGITAL TECHNOLOGIES, INC.,
Petitioner,

v.

GODO KAISHA IP BRIDGE 1,
Patent Owner.

Case No. IPR2024-01447
Patent No. 8,405,134

REPLY IN SUPPORT OF PATENT OWNER'S MOTION TO STRIKE

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¹ All emphasis is added throughout.

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Petitioner (“WD”)’s assertion that Paper 31 (“Mot.”) was only authorized to address EX1097-99 cites IPB’s denied request for a sur-reply declaration instead of the Board’s order. Paper 35 (“Opp.”), 1. IPB was authorized to move to strike *all* WD’s new arguments. Paper 30, 3. Alleging EX2080-81 were “unauthorized” does not make it so. Opp., 1-3 (citing *nothing*). The Board imposed no such restriction.²

I. NEW ARGUMENTS SHOULD BE STRUCK

A. WD Does Not Defend the Petition’s Failed Showing

IPB walked through the Petition’s showing for the *MgO(001) limitations (1[d]/3[d])* and demonstrated that the Petition mapped those limitations to *unmodified* Bowen/Nagahama and only cited evidence showing that MgO(001) forms on a crystalline(001) layer – not on amorphous CoFeB as in Petitioner’s combinations. Mot., 1-3. WD does not dispute this. That should end the matter.

WD cites *no* Petition page addressing the MgO(001) limitations for Ground 2 and a *single* page for Ground 1. Opp., 5 (citing *Pet. 33*). WD says the Reply’s Parkin-based argument was in the Petition at *39-41* and addressed by IPB and the Board pre-institution. Opp., 4. But WD never disputes the Petition at 39-41 addressed a *different* claim limitation (*1[e]*) requiring a lower CoFeB electrode. Mot., 5. WD’s assertion that the Reply’s Parkin-based argument for the MgO(001) limitations is the same as the Petition’s limitation 1[e] argument fails. Mot., 4-6;

² IPB will respond further in opposing WD’s baseless motion to strike EX2080-81.

infra §I.C. That is reinforced by: (1) Ground 2’s showing for the MgO limitations never referenced its [1e] argument and (2) the Petition’s 1[e] argument only “[a]lternatively” relied on Parkin rather than **Sunai** (Petition, 32-41) and the Reply never alleged that Sunai meets the MgO(001) limitations. The Petition fatally failed to establish an expectation of success in forming MgO(001) on CoFeB.

B. WD’s Other-Amorphous-Surface Argument is New

IPB addressed the **Petition’s** arguments (Mot., 1-3) and demonstrated that the Petition never argued “POSAs reasonably expected MgO(001) to form on CoFeB because it allegedly formed on different amorphous substrates” (*id.*, 7). WD’s response ***never even alleges this argument was made in – and never even cites to – the Petition.*** Opp., 7-9 (§II.B). This argument is indisputably new.

WD’s assertion that it was entitled to make its ***new*** other-amorphous-surfaces argument, based on new evidence, to allegedly refute Dr. Ross’s testimony fails. Opp., 7-9. None of this evidence refutes anything Dr. Ross said (Sur-reply, 17-27) and WD’s assertion that Ross should have addressed new EX1097-99 at deposition is baseless (*id.*, n. 5). Regardless, WD carried the burden to establish an expectation of success ***in the Petition.*** Mot., 8 (citing authority). WD advances its other-amorphous-surfaces argument and evidence in a belated attempt to establish *prima facie* unpatentability in Reply. That is prohibited. *Id.*

WD never disputes its “seed layer” structures – amorphous at the interface

with the layer below – are *different from the structures of the MgO barrier layers the Petition mapped to the MgO(001) limitations*. Mot., 7; Sur-reply, 20-22. This does not “miss[] the point” (Opp., 9) – it shows that this new evidence does not establish an expectation of success in meeting the *claimed* MgO *barrier* layer. WD’s assertion that an MgO *barrier* layer amorphous at the surface with CoFeB is Yuasa’s invention (Opp., 9) is wrong. EX1005, 8:56-9:2, Fig. 11, 5:15-61; EX2085, 123:18-124:5 (Bokor refuting); EX1046, 4. WD ignores that EX2013’s MgO barrier was entirely (001) after the MTJ was annealed. EX2013, 3.

C. WD’s Parkin Arguments for the MgO(001) Limitations are New

The Petition cited Parkin’s disclosure that Fig 3A’s “top and bottom electrodes ... may be ‘inverted’” (Pet., 40) to meet Limitation *1[e]’s* requirement of a CoFeB *lower* electrode (*id.*, 34). Both experts agree “inverted” means making the MTJ’s *storage* electrode the lower electrode. Sur-reply, 13. WD’s assertion that the POPR “proved [WD’s] point” that in “inverted” Fig. 3 MgO(001) was “above amorphous CoFeB” (Opp., 4) is obfuscation. Fig. 11 shows “inverted” Fig. 3 in which the MgO barrier is “above” or “over” (Opp., 5) storage electrode 510 (which includes CoFeB layer 515) but formed *on* crystalline(001) layer 520. Parkin, 22:29-23:11; Mot., 4-6; Sur-reply 14-16. WD never disputed that its combinations form MgO directly *on (not just “above” or “over”)* CoFeB. Mot., 1-3. WD failed to establish an expectation of success that MgO(001) would form *on* CoFeB.

It is **undisputed** that Parkin's Fig. 3 MTJ can be "inverted" without forming its MgO barrier **on** CoFeB. Mot., 4-6 (both experts agree). Fig. 11 shows this. Indeed, WD's expert admitted Petition-cited Fig. 3A was **not** the basis for his opinion that Parkin taught MgO(001) on CoFeB – he relied **solely** on Fig. 11's layer 520 being "optional." *Id.*; EX2085, 117:15-120:4, 114:17-23. Thus, "inverted" Fig. 3 indisputably does not establish that Parkin meets the MgO(001) limitations. That puts the lie to WD's assertion that the Reply's argument that Fig. 11's layer 520 is optional is somehow the same argument the Petition made about Fig. 3 being inverted. It is undisputed that the Petition never cited Fig. 11 or its disclosure that "[a]n interface layer 520 of a crystalline CoFe alloy may also be used" (Parkin, 22:66-67), let alone allege this means layer 520 is "optional." WD's assertion that when the Petition cited **Fig. 3** to meet limitation **1[e]** what WD really meant was that **layer 520 in Fig. 11** is "optional" which meets limitation **1[d]** strains credibility. The argument that Fig. 11's layer 520 is "optional" is new.

WD's assertion that IPB should not have been "surprise[d]" WD would rely on Parkin Fig. 11's layer 520 being "optional" and should have addressed this in the POR is extraordinary. Opp., 6 and 10. The **Petition** must state its grounds with "particularity," include "a detailed explanation" and "identify[] **specific portions of the evidence** that support the challenge." 35 U.S.C. §312(a)(3); 37 C.F.R. §§42.22(a)(2) and 42.104(b)(5). Those requirements prevent WD from offering a

different unpatentability theory after the Petition's theory is proven deficient.

Wasica Finance v. Cont'l Auto., 853 F.3d 1272, 1286–1287 (Fed. Cir. 2017).

II. NEW EVIDENCE SHOULD BE STRUCK

Cases finding it proper reply to cite additional evidence supporting the *petition's* arguments (Opp., 6-7) are inapposite because the Reply cites new evidence to make meaningfully distinct contentions. Mot., 1-8 (citing *Ariososa*). IPB timely moved to strike EX2018, 134:1-138:11 when cited in “briefing.” The new evidence identified in Paper 31 at 1 (§I) should be struck.

III. WD FAILS TO REFUTE PREJUDICE

IPB had to devote two thirds of its Sur-reply (pages 9-27) to WD's new Reply arguments. The Board will need to rule on whether these Reply arguments are new at some point. If the Board rules before oral hearing and strikes them, IPB need not spend its limited oral hearing time addressing these extensive new arguments and evidence Devoting oral hearing time to entertaining these *clearly new* arguments is not warranted because WD cannot carry its burden on either. Parkin directly refutes WD's new Parkin Fig. 11-based argument. *Id.*, 14-16. And no prior art reference suggested that MgO formation on other amorphous substrates was informative of growth on CoFeB; the only link between WD's new evidence and CoFeB is Bokor's unqualified – he is “no [crystal growth] expert” (Mot., 10) – and unreliable testimony that is refuted by the evidence itself. Sur-reply, 17-27.

Respectfully submitted,

Date: December 4, 2025

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (e)(4)

I certify that on December 4, 2025, a copy of the foregoing document, including any exhibits filed therewith, is being served via electronic mail, as previously consented to by Petitioner, upon the following:

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