

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROCHE MOLECULAR SYSTEMS INC.,
Petitioner,

v.

ILLUMINA, INC.,
Patent Owner.

Case IPR2015-01091
Patent 7,955,794 B2

Before LORA M. GREEN, ZHENYU YANG, and TINA E. HULSE,
Administrative Patent Judges.

GREEN, *Administrative Patent Judge.*

DECISION
Denying Motion for Joinder
and Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108; 37 C.F.R. § 42.122(b)

I. INTRODUCTION

On April 24, 2015, Roche Molecular Systems, Inc. (“Roche,” “Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–22 of U.S. Patent No. 7,955,794 B2 (Ex. 1001, “the ’794 patent”). Paper 3 (“Pet.”). Petitioner filed a Motion for Joinder concurrently with the Petition. Paper 2 (“Mot. Joinder”). Illumina, Inc. (“Illumina,” “Patent Owner”) filed a Preliminary Response to the Petition (Paper 13, “Prelim. Resp.”), as well as an Opposition to the Motion for Joinder (Paper 9, “Opp. Mot. Joinder”). Upon request from the panel, Petitioner filed a Reply to Patent Owner’s Preliminary Response. Paper 15 (“Reply”).

We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

The statute grants the Board discretion to deny a petition, even when the conditions for review may have been met. *See id.* (stating only that the Director may not institute review unless certain conditions are met). For the reasons that follow, in light of the totality of circumstances presented in this case, we deny the Petition. 35 U.S.C. §§ 314(a), 325(d); *see also* 35 U.S.C. § 316(b) (noting that the rules for *inter partes* review proceedings shall take into account the “regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings”), 37 C.F.R. § 42.108(b) (“At any time prior to institution of *inter partes* review, the Board may deny some or all of the grounds for unpatentability.”).

A. *Related Proceedings*

Petitioner states that the '794 patent is the subject of the copending district court case, *Illumina, Inc. v. Ariosa Diagnostics, Inc.*, Case No. 3:14-cv-01921 (N. D. Cal.), which has been consolidated with *Verinata Health, Inc. v. Ariosa Diagnostics*, Case No. 3:12-cv-05501-SI (N.D. Cal.). Pet. 2.

In addition, this IPR is related to IPR2014-01093, to which Petitioner is seeking joinder. Specifically, we instituted an *inter partes* review in IPR2014-01093 on January 8, 2015, on the ground that claims 1–22 are anticipated by Fan.¹ Ariosa Diagnostics, Inc. (“Ariosa”) is the nominal Petitioner in IPR2014-01093, while Roche is the nominal Petitioner in the instant proceeding. Roche, however, was added as a real party-in-interest in IPR2014-01093 (IPR2014-01093, Paper 35), and Ariosa was named as a real party-in-interest in the instant proceeding (Paper 4).

B. *The '794 Patent*

The '794 patent issued on June 7, 2011, with Mun-Jui Richard Shen, Arnold Oliphant, Scott L. Butler, John E. Stuelpnagel, Mark S. Chee, Kenneth M. Kuhn, and Jian-Bing Fan as listed co-inventors. Ex. 1001. The '794 patent provides “a number of methods directed to the multiplexing amplification and/or genotyping reactions of target sequences to create amplicons that can subsequently be detected on an array.” *Id.* at 1:54–57.

Specifically, the '794 patent discloses “a variety of compositions and methods directed to multiplexed analysis of nucleic acids.” *Id.* at 5:32–34. The '794 patent states “[a]s used herein, the phrase ‘multiplex’ or grammatical equivalents refers to the detection, analysis or amplification of

¹ Fan et al. (“Fan”), Pub. No. US 2002/0172946 A1, published Nov. 21, 2002 (IPR2014-01093, Ex. 1004).

more than one target sequence of interest.” *Id.* at 5:61–64. As taught by the ’794 patent, the methods generally include steps of complexity reduction, specificity, and amplification. *Id.* at 5:47–49. The nucleic acid to be detected, that is, the target sequence, may be DNA or RNA. *Id.* at 8:9–17.

C. Illustrative Claim

Petitioner challenges claims 1–22 of the ’794 patent. Claim 1, the only independent claim, is illustrative, and is reproduced below:

1. A multiplex method for determining whether a sample contains at least 100 different target sequences, comprising:
 - a. providing a sample which may contain at least 100 different single-stranded target sequences attached to a first solid support;
 - b. contacting said target sequences with a probe set comprising more than 100 different single-stranded probes, wherein each of said more than 100 different probes comprises:
 - i) a first universal priming site, wherein each of said more than 100 different probes has identical universal priming sites, and
 - ii) a target specific domain, such that different double stranded hybridization complexes are formed, each of the different hybridization complexes comprising one of said more than 100 different single-stranded probes and one of the different single-stranded target sequences from the sample;
 - c. removing unhybridized probes;
 - d) contacting said probes of the hybridization complexes with a first enzyme and forming different modified probes;
 - e. contacting said modified probes with:
 - i) at least a first primer that hybridizes to said universal priming site;

- ii) NTPs; and
- iii) an extension enzyme;

wherein said different modified probes are amplified and forming different amplicons;

f. immobilizing said different amplicons to a second solid support, and

g. detecting said different amplicons immobilized to said second solid support, thereby determining whether the sample contains at least 100 different target sequences.

D. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–22 of the '794 patent on the following grounds:

Reference(s)	Basis	Claim(s) challenged
Shuber ²	§ 102	1–3, 5–8, 14, 15, 17
Shuber	§ 103	1–3, 5–8
Straus ³	§ 102	1–3, 5–9, 11, 13–15, 17, 21
Shuber and Fodor ⁴	§ 103	4
Strauss and Fodor	§ 103	4
Shuber and Backman ⁵	§ 103	9–11, 13–15, 17
Shuber and Straus	§ 103	9–11, 13–15, 17

² Shuber, US 5,834,181, issued Nov. 10, 1998 (Ex. 1003).

³ Straus, Pub. No. US 2002/0086289 A1, published Jul. 4, 2002 (Ex. 1004).

⁴ Fodor et al. (“Fodor”), US 6,197,506 B1, issued Mar. 6, 2001 (Ex. 1005).

⁵ Backman et al. (“Backman”), US 5,792,607, issued Aug. 11, 1998 (Ex. 1006).

Reference(s)	Basis	Claim(s) challenged
Shuber and Diamandis ⁶	§ 103	12
Shuber, Backman, and Diamandis	§ 103	12
Shuber, Straus, and Diamandis	§ 103	12
Shuber and Walt ⁷	§ 103	15–18
Straus and Walt	§ 103	15–18, 21, 22
Shuber, Backman, and Walt	§ 103	15–18, 21, 22
Shuber, Straus, and Walt	§ 103	15–18, 21, 22
Shuber and Backman	§ 103	19 and 20
Straus and Backman	§ 103	19 and 20
Shuber, Straus, and Backman	§ 103	19 and 20

II. MOTION FOR JOINDER

An *inter partes* review may be joined with another *inter partes* review, subject to the provisions of 35 U.S.C. § 315(c), which governs joinder of inter partes review proceedings:

(c) JOINDER.—If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter parties review under section 314.

⁶ Eleftherios P. Diamandis and Theodore K. Christopoulos (“Diamandis”), *The Biotin—(Strept)Avidin System: Principles and Applications in Biotechnology*, 37 CLIN. CHEM. 625–636 (1991) (Ex. 1008)

⁷ Walt et al. (“Walt”), US 6,327,410 B1, issued Dec. 4, 2001 (Ex. 1007).

As the moving party, Petitioner bears the burden of proving that it is entitled to the requested relief. 37 C.F.R. § 42.20(c). A motion for joinder should: (1) set forth the reasons joinder is appropriate; (2) identify any new grounds of unpatentability asserted in the petition; and (3) explain what impact (if any) joinder would have on the trial schedule for the existing review. *See Kyocera Corp. v. Softview LLC*, IPR2013-00004, slip op. at 4 (PTAB April 24, 2013) (Paper 15); Frequently Asked Question (“FAQ”) H5 on the Board’s website at <http://www.uspto.gov/ip/boards/bpai/prps.jsp>.

The Petition in this proceeding has been accorded a filing date of April 24, 2015. Paper 5. IPR2014-01093 was instituted on January 8, 2015. IPR2014-01093, Paper 14. The Petition and Motion for Joinder in the instant proceeding, therefore, fail to satisfy the joinder requirement of being filed within one month of our instituting a trial in IPR2014-01093. 37 C.F.R. § 42.122 (“Any request for joinder must be filed . . . no later than one month after the institution date of any *inter partes* review for which joinder is requested.”).

Petitioner contends that the Board should exercise its discretion, and waive the one month requirement for filing the Motion for Joinder. Mot. Joinder 1 (citing *Sony Corp. of Am. v. Network-1 Sec. Solutions, Inc.*, IPR2013-00495, slip. op. at 4 (PTAB Sept. 16, 2013) (Paper 13) (exercising discretion to waive the one-month requirement under 37 C.F.R. § 42.122(b)). Specifically, Roche argues that it announced its acquisition of Ariosa on December 2, 2014, which acquisition was not complete until January 12, 2015. *Id.* at 1, 4. Thus, Roche argues, it had no input as to the challenges that were filed in IPR2014-01093, as it had no interest in Ariosa when the Petition in that IPR was filed. *Id.* at 1–2.

Petitioner notes that once it had completed acquisition of Ariosa, it conducted its own assessment of the validity of the '794 patent. *Id.* at 4. Petitioner states that even though the Petition in the instant proceeding is not barred under 35 U.S.C. § 315(b), it is seeking joinder in order to avoid the possibility of estoppel under 35 U.S.C. § 315(e) if a final decision were to be issued in IPR2014-01093 before the conclusion of the instant proceeding. *Id.* at 5.

Specifically, Petitioner contends that joinder is appropriate because:

(1) it obviates the concern that Roche may unjustly face estoppel based on a final written decision in the Ariosa IPR despite the fact that Roche had no input on the grounds presented in that proceeding, (2) the petitions address the same claims in the '794 patent, and (3) joinder simplifies the issues by addressing the validity of the '794 patent in one proceeding.

Id. at 3. Petitioner notes that it “is willing [to] work with Illumina to arrive at a mutually agreeable schedule that reduces any prejudice due to delays in [IPR2014-01093].” *Id.* at 7–8. Petitioner suggests a schedule that would allow for completion of IPR2014-01093 within eighteen months, which would be permitted in the case of joinder. *Id.* at 8.

Patent Owner opposes joinder. Opp. Mot. Joinder. According to Patent Owner, trial was instituted in IPR2014-01093 on January 8, 2015, and on January 20, 2015, Ariosa informed the District Court that Roche is an entity interested in the outcome of the litigation. *Id.* at 3 (citing Ex. 2008). On February 2, 2015, the District Court stayed the pending litigation pending the outcome of IPR2014-01093. *Id.* (citing Ex. 2010). Petitioner, Patent Owner argues, then waited until after it cross-examined Patent Owner’s experts in IPR2014-01093 to file the Petition in the instant proceeding on April 24, 2015. *Id.* at 4.

Patent Owner asserts further that before Ariosa ever filed its Petition in IPR2014-01093, Ariosa and Petitioner were already in acquisition discussions. *Id.* Specifically, the Petition in IPR2014-01093 was filed on July 2, 2014, while Petitioner and Ariosa were in discussion as of June 6, 2014. *Id.* (citing Ex. 2014). Moreover, according to Patent Owner, Dr. John Stuelpnagel, one of the inventors of the '794 patent, represented Ariosa in the acquisition discussions. *Id.* Roche announced it was acquiring Ariosa on December 2, 2014, which was before trial was instituted in IPR2014-01093. *Id.* (citing Ex. 2016). Petitioner's acquisition of Ariosa was completed on January 12, 2015. *Id.* (citing Paper 2, 4).

Patent Owner argues that IPR2014-01093 is at an advanced stage. *Id.* at 3. Thus, Patent Owner argues, joinder would significantly affect the schedule in IPR2014-01093. *Id.* at 5. In fact, Patent Owner asserts, the institution decision in the instant proceeding would be due more than two months after oral argument was held in IPR2014-01093. *Id.*

Patent Owner argues further that Petitioner's Motion for Joinder is untimely, as it was filed nearly four months after trial was instituted in IPR2014-01093. *Id.* Patent Owner asserts that any special circumstances that would justify waiving the one month time limit for the filing of the Motion for Joinder were of Petitioner's own making. *Id.* at 6.

Mr. Dan Zambrowski, head of Roche Tissue Diagnostics and Roche Sequencing Unit, "acknowledged that Roche knew about Ariosa's litigation with Illumina, stating that Roche 'went into this agreement with our eyes wide open.'" *Id.* at 7 (citing Ex. 2017, 3). In addition, Petitioner completed its acquisition of Ariosa on January 12, 2015, only four days after trial was instituted in IPR2014-01093, which would have left Petitioner a month to prepare and file its petition and motion for joinder. *Id.* at 7–8. Rather,

Patent Owner argues, Petitioner waited nearly three and half months before filing. *Id.* at 8.

Petitioner responds that the Petition in IPR2014-01093 was filed on July 2, 2014, which was more than 6 months before its acquisition of Ariosa was completed. Paper 11, 3. Specifically, Petitioner argues:

Although Roche was aware of Ariosa's litigation with Illumina, Roche was not in a position to develop invalidity positions or to influence the grounds selected in Ariosa's petition, and indeed, the Ariosa transaction could have fallen through at any time before the deal closed on January 12, 2015. Illumina's view as to what Roche should have done during the negotiations before the deal closed, and before Roche and Ariosa had any substantive relationship, would impose an unworkable burden on parties engaged in business discussions.

Id. at 3–4.

Joinder is not automatic, but is discretionary based on the particular circumstances of each proceeding. *See Unified Patents, Inc. v. Personalweb Techs., LLC and Level 3 Commc'ns, LLC*, Case IPR2014-00702, slip. op. at 4 (PTAB Jan. 13, 2015) (Paper 12). In the instant proceeding, we agree with Patent Owner that joinder with IPR2014-01093 would not promote the efficient resolution of those proceedings.

After carefully considering both Petitioner's and Patent Owner's evidence and argument, we deny Petitioner's Motion for Joinder. As noted by Patent Owner, Roche announced the acquisition of Ariosa at least as early as December 2, 2014. Ex. 2017. And as also noted by Patent Owner, at that time, Roche was aware that "Ariosa . . . [was] embroiled in a number of patent infringement lawsuits, including with . . . Illumina[] and Illumina's Verinata Health business, and Roche will continue to defend the company in court, Zambrowski said, adding that Roche 'went into this agreement with

our eyes wide open.”” *Id.* Given that Petitioner had announced the acquisition of Ariosa as early as December 2, 2014, noting that it went into the agreement to acquire Ariosa with its eyes wide open, Petitioner has not provided a persuasive reason as to why it waited until April 24, 2015, to file the instant Petition.

Moreover, Patent Owner has provided evidence that “Roche acquiring Ariosa was first raised on or around June 6, 2014,” with the “primary people involved in these discussions were Dr. Ken Song, Dr. John Stuelpnagel [a listed inventor on the ’794 patent], and Mr. Dan Pickett from Ariosa and Dr. Dan Zabrowski and Mr. Jonathan Seaton from Roche.” Ex. 2014, 7. Petitioner has not provided any persuasive reasons as to why one month was not sufficient time for Roche to file the instant Petition after trial was instituted in IPR2014-01093, because Roche already was well aware of the litigation between Ariosa and Illumina from its discussions over acquiring Ariosa, which began as early as June of 2014. Petitioner could have also filed its own petition at any time, as there is no standing requirement to file a petition for *inter partes* review. See 35 U.S.C. § 311(a) (noting that “a person who is not the owner of a patent may file with the Office a petition to institute an inter partes review”); see also *Coalition for Affordable Drugs VI, LLC v. Celgene Corp.*, IPR2015-01092, slip. op. at 3–4 (PTAB Sept. 25, 2015) (Paper 19) (noting that in contrast to covered business method reviews, which require a party or privy to have been sued or charged with infringement of the patent, any person who is not the owner of the patent may file a petition for *inter partes* review of a patent).

Petitioner’s reliance on *Sony Corp. of America v. Network-1 Security Solutions, Inc.*, IPR2013-00495, slip. op. at 4 (PTAB Sept. 16, 2013) (Paper 13), does not convince us otherwise. In that proceeding, the petitioner

asserted grounds that were identical to those on which the Board had already instituted trial, and, thus, joinder did not require any change to the trial schedule and added no burden to the existing parties. *Id.* at 9. Those circumstances are not present in the instant case, as Petitioner has presented eighteen new challenges, none of which are the challenge on which review was instituted in IPR2014-01093.

III. INSTITUTION OF INTER PARTES REVIEW

The Board has discretion to deny a petition, even when the conditions for review may have been met. *See* 35 U.S.C. §§ 314(a), 316(b); 37 C.F.R. § 42.108(b). One factor the Board may take into account when exercising that discretion is whether “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d) (“[i]n determining whether to institute or order a proceeding” for *inter partes* review, “the Director may take into account” that factor, and “reject the petition” on that basis).

Petitioner seeks *inter partes* review of claims 1–22 of the ’794 patent for, what is, essentially, a second time. Pet. 1. Petitioner notes that a separate petition for *inter partes* review of the ’794 patent was filed by Ariosa in IPR2014-01093, but contends that it had no control over the content of that petition. *Id.* at 1–2. Although that may be technically true, both the Petitioner in this case, Roche, and the Petitioner in IPR2014-01093, Ariosa, are both designated as real parties-in-interest in both proceedings. And, as discussed above, while Petitioner in the instant proceeding may have made a calculated business decision to wait to file the instant petition, it knew as early as June 2014 that it may acquire Ariosa, and it could have filed its own petition at any time, as there is no standing requirement to file a petition for *inter partes* review. Thus, there was no need for Roche to wait

to file its petition, as there was no bar to the filing of its petition within a month of institution of trial in IPR2014-01093.

Patent Owner contends that the petition should be denied as it raises the same or substantially the same arguments presented in the IPR2014-01093 Petition. Prelim. Resp. 15. Specifically, as to the challenges that rely on Straus, Patent Owner argues that the Straus reference is “substantively identical” to the Straus reference relied upon by Ariosa in IPR2014-01093. *Id.* at 15–16. According to Patent Owner, the Straus reference relied upon in the instant proceeding “is the parent application of, and is substantively identical” to the Straus references cited in IPR2014-01093, arguing that Petitioner has not provided a meaningful explanation as to the differences between the two references. *Id.* at 16–17. As to the reliance on Shuber in the instant Petition, Patent Owner argues that Petitioner presents no argument that it was not aware of Shuber when the IPR2014-01093 Petition was filed. *Id.* at 18–19.

Patent Owner argues further that Petitioner is using the instant Petition as a means to remedy the deficiencies of the IPR2014-01093 Petition. *Id.* at 19–21. In particular, Patent Owner argues that Petitioner waited until after Patent Owner had filed its Response, and after it had the opportunity to cross-examine Patent Owner’s experts in IPR2014-01093, before filing the instant Petition. *Id.* at 20. According to Patent Owner, “Petitioners have gained an unfair advantage in the present IPR by delaying until Illumina and Petitioners’ experts have taken specific positions in the ’093 IPR as part of the ‘feedback loop’ to remedy the defects of the ’093 IPR.” *Id.* at 20–21 (citing *Travelocity.com L.P. v. Chronos Techs., LLC.*, CBM2015-00047, slip. op. at 13 (PTAB June 15, 2015) (Paper 7) (stating that the Board’s

decisions “are not simply part of a feedback loop by which a petitioner may perfect its challenges through a subsequent filing.”)).

Petitioner responds that “it is objectively unreasonable to suggest that Ariosa could have raised the Shuber patent in its Petition [in IPR2014-01093].” Paper 16, 3. Specifically, Petitioner asserts that the field is crowded, with over 300 references cited on the face of the ’794 patent, which did not include a listing of the Shuber patent. *Id.* Moreover, Petitioner asserts that Shuber uses unorthodox language, and, thus, “[t]he fact that three interested participants failed to find the Shuber patent in this crowded field demonstrates, if anything, it would be unreasonable to suggest that Ariosa could have raised it in its Petition.” *Id.* at 3–4.

We approach our discretion to deny a petition on a case-by-case basis. As explained above, one factor that favors denial of the instant Petition is that it raises “substantially the same” arguments as the Petition in IPR2014-01093. 35 U.S.C. § 325(d). We have compared the prior art and arguments raised in the instant Petition to those raised in the Petition filed in IPR2014-01093. Based on the information presented, we are persuaded that the instant Petition raises, at minimum, “substantially the same . . . arguments” that “previously were presented to the Office” in the Petition filed in IPR2014-01093. 35 U.S.C. § 325(d). That is one factor, contributing to the totality of circumstances in this case, that informs our decision to exercise our discretion to deny the Petition.

On that point, Patent Owner observes that the Straus reference cited by Petitioner in the instant proceeding is the parent of Straus cited in the Petition in IPR2014-01093. Petitioner notes that it cited the parent to correct the failure of the Petition in IPR2014-01093 to demonstrate that the Straus reference relied upon in that proceeding was prior art. Pet. 18 n.4.

Petitioner does not explain, however, why the Straus reference cited in the instant Petition could not have been relied upon in the IPR2014-01093 Petition.

As to Shuber, Petitioner notes that it is prior art under 35 U.S.C. § 102(b), and “provides an actual example of detection of more than 100 different target nucleic acids.” Pet. 59. Other than those statements, Petitioner does not point specifically to differences between the teaching of Shuber and Fan, on which trial was instituted in IPR2014-01093. Moreover, although Petitioner explains why Shuber may have been difficult for Ariosa, Illumina, and the Examiner to locate, that does not obviate the fact that the instant Petition, is in effect, a second chance for Ariosa to perfect the Petition it filed in IPR2014-01093. Paper 16, 3–4. In addition, Petitioner, other than as to the Shuber reference, does not argue that any of the additionally cited references relied upon by the instant Petition were unknown or unavailable at the time of filing the Petition in IPR2014-01093. That fact supports a reasonable inference that those references were known and available to Ariosa when review was requested the first time. On this record, interests of fairness, economy, and efficiency tip the balance in favor of denial.

Another factor that tips the balance in favor of denying institution of *inter partes* review is the timing of the filing of the instant Petition. As noted by Patent Owner, Petitioner had the advantage of the Patent Owner’s response in IPR2014-01093 (Prelim. Resp. 20), as well the depositions of Patent Owner’s expert in that proceeding, which were conducted by counsel for Roche (*id.* at 8). Essentially, the only reason that Petitioner has provided for waiting until April of 2015 to file the instant Petition is that it did not complete its acquisition of Ariosa until January 12, 2015. However, as

discussed above, Petitioner was aware of the possibility of acquiring Ariosa as early as June of 2014, and announced its acquisition as early as December of 2014. Petitioner has not provided any persuasive reason as to why it could not have filed the Petition earlier, much less why the Petition could not have been filed within one month of institution of IPR2014-01093.

On this record, we are persuaded that our resources are better spent addressing matters other than Petitioner's belated, and essentially, second attempt to raise a plurality of duplicative grounds against the same patent claims. *See Heckler v. Chaney*, 470 U.S. 821, 831 (1985) (when deciding whether to take action in a particular matter, an agency must determine whether its resources are best spent on one matter or another). Petitioner provides no persuasive reason why we should institute *inter partes* review in light of the above facts. Based on the totality of circumstances before us, we exercise our discretion and deny institution of *inter partes* review.

35 U.S.C. §§ 314(a), 316(b), 325(d); 37 C.F.R. § 42.108(b).

IV. ORDER

In consideration of the foregoing, it is hereby
ORDERED that Petitioner's Motion for Joinder is *denied*; and
FURTHER ORDERED that the Petition is *denied*.

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