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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DAVID JARUS

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Appeal 2011-010547  
Application 12/519,678  
Technology Center 1700

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Before CATHERINE Q. TIMM, BEVERLY A. FRANKLIN, and  
GEORGE C. BEST, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant brings this appeal under 35 U.S.C. § 134 seeking reversal of the Examiner's decision to reject claims 1, 2, 5-11, and 14-18 under 35

U.S.C. § 103(a) as obvious over Chung<sup>1</sup> in view of Lin<sup>2</sup> or Muyldermans<sup>3</sup>.  
We have jurisdiction under 35 U.S.C. § 6(b).

For the reasons presented by the Examiner in the Answer, we  
AFFIRM. We add the following for emphasis.

#### OPINION

Appellant does not argue any claim apart from the others (Br. 5-8).  
Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(vii), we select claim 1  
as representative to resolve the issues on appeal. Claim 1 is directed to a  
type of thermoplastic elastomer called a thermoplastic vulcanizate (Claim 1;  
Spec. ¶ [0003]). A thermoplastic vulcanizate is a crosslinked elastomer, and  
has a rubbery discontinuous phase within a thermoplastic continuous phase  
(*id.*). Claim 1 requires the addition of a set of heat stabilizers, one of which  
is a phosphite said to stabilize the thermoplastic phase, and another is an  
aromatic amine said to stabilize the elastomeric phase. Claim 1 reads as  
follows:

1. A high temperature thermoplastic vulcanizate,  
comprising:
  - (a) a thermoplastic phase of polymer selected from the  
group consisting of homopolymers and copolymers of lower  $\alpha$ -  
olefins having 6 or less carbon atoms,
  - (b) an elastomeric phase of polymer selected from the  
group consisting of natural rubber, polyisoprene rubber,  
styrenic copolymer elastomers, polybutadiene rubber, nitrile  
rubber, butyl rubber, and olefinic elastomer, and combinations  
thereof, and

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<sup>1</sup> Chung et al., US 2007/0037931 A1, pub. Feb. 15, 2007.

<sup>2</sup> Lin et al., US 2006/0116456 A1, pub. Jun. 1, 2006.

<sup>3</sup> Muyldermans et al., US 2004/0242721 A1, pub. Dec. 2, 2004.

(c) a set of heat stabilizers at least one of which stabilizes the thermoplastic phase and at least one of which stabilizes the elastomeric phase,

wherein one of the heat stabilizers which stabilizes the thermoplastic phase polymer is a phosphite, and

wherein one of the heat stabilizers which stabilizes the elastomeric phase polymer is an aromatic amine.

(Claims App'x at Br. 9.)

There is no dispute that Chung describes a thermoplastic vulcanizate (TPV) having a thermoplastic phase and an elastomeric phase and containing a phosphorous stabilizer that can be a phosphite (*Compare* Br. 5 *with* Ans. 3; *see also* Chung, ¶¶ [0010], [0043]). Nor is there any dispute that Chung further discloses optionally adding aromatic amine heat stabilizers to the phosphorous stabilized TPV (*Compare* Br. 5 *with* Ans. 3; *see also* Chung, ¶ [0046]). While we agree with Appellant that Chung fails to set forth a specific example of the stabilizer combination, nonetheless, Chung suggests the addition of both types of stabilizers to a two phase TPV.<sup>4</sup>

Because Chung specifically suggests adding an aromatic amine heat stabilizer to a TPV containing a thermoplastic phase, an elastomeric phase, and a phosphite stabilizer, we cannot agree with Appellant that the prior art fails to suggest the claimed composition (Br. 6). “[A] reference is not limited to the disclosure of specific working examples.” *In re Mills*, 470 F.2d 649, 651 (CCPA 1972). Moreover, it is reasonable to conclude that the additives would stabilize the various phases as claimed, given the identical

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<sup>4</sup> The secondary references each provide further evidence that phosphites and aromatic amines were known stabilizers for use in polymer compositions such as TPVs (Lin, ¶¶ [0014] and [0034]); Muyldermans, ¶¶ [0090] and [0092-93]).

or substantially identical nature of the components of the composition to those disclosed by Appellant. It appears the genus of phosphite stabilizers that will stabilize the thermoplastic phase is not especially limited (Spec. ¶ [00028]), nor is the genus of aromatic stabilizers that will stabilize the elastomeric phase (Spec. ¶ [00032]).

Nor, as argued by Appellant, do the specific examples of Chung “teach away” from combining the phosphite and aromatic amine stabilizers (Br. 7). Disclosed examples do not constitute a teaching away from a broader disclosure. *In re Susi*, 440 F.2d 442, 446 n.3 (CCPA 1971).

Appellant contends that comparative data in the Specification demonstrates that the composition had “superior long term heat aging and resulted in a high temperature TPV” and had superior results for OIT [Oxygen Induction Time] at 220 °C. (Br. 7-8, citing Spec. Examples 1-9 compared to Comparative Examples A-C; ¶¶ [00067-72]; Table 5; Examples 10-17 compared to Comparative Examples D and E; and Table 10). However, Appellant has not responded to the Examiner’s reasonable determination that the higher concentrations of stabilizers in Examples 1-9 as compared to Comparative Examples A-C (0.2% versus 0.5-1.3%) would have been expected to provide better heat stabilization (Ans. 5). Nor has Appellant responded to the Examiner’s further determination that it is not clear how a comparison of Examples 10-17 to Comparative Examples D and E provides evidence of unexpected results (*id.*). Appellant has the burden to show unexpected results. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). That burden has not been met here.

#### CONCLUSION

We sustain the Examiner’s rejection.

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Application 12/519,678

DECISION

The Examiner's decision is affirmed.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED

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