

The opinion in support of the decision being entered today was **not** written for publication and is **not** precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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**Ex parte** DONALD S. FARQUHAR  
and KONSTANTINOS I. PAPATHOMAS

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Appeal No. 2005-0798  
Application No. 10/460,000

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ON BRIEF

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Before KIMLIN, JEFFREY T. SMITH and PAWLIKOWSKI, **Administrative Patent Judges.**

PAWLIKOWSKI, **Administrative Patent Judge.**

**DECISION ON APPEAL**

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 9, 11-13, 16-19 and 28-38.

Claim 9 and 18 are representative of the subject matter on appeal and are set forth below, wherein the text in bold is for emphasis only:

9. A hole fill composition comprising:
  - a fluoropolymer dielectric material;
  - a silica filler material comprised of particles, each particle being substantially spherical or spheroidal **and having a size of from about 0.1 micron to about 40 microns;**and

a coupling agent, said filler material having at least a partial coating of said coupling agent thereon.

18. A hole fill composition comprising:  
a fluoropolymer dielectric material;  
a surfactant;  
a silica filler material comprised of substantially spherical or spheroidal particles, **the particles having a size range distribution of from about 0.1 micron to about 40 microns**; and  
a coupling agent, said filler material having at least a partial coating of said coupling agent thereon.

On page 4 of the brief, appellants state that all the claims are grouped together. We select claim 9 for consideration in this appeal. 37 CFR § 1.192(c)(7)(2004).

The examiner relies upon the following reference as evidence of unpatentability:

Swei et al. (Swei)                      5,506,049                      Apr. 09, 1996

Claims 9, 11-13, 16-19, and 28-38 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Swei.

#### OPINION

The examiner's position regarding the anticipation rejection is set forth on pages 3-5 of the answer.

The single issue argued in the present appeal is whether Swei anticipates the claimed language of a silica filler material. Claim 9 recites a silica filler material "having a size of from about 0.1 micron to about 40 microns".

The examiner finds that Swei teaches a particle size of less than 10 microns. Answer, page 3. Also, on page 7 of the answer, the examiner states that Swei's teaching "of more preferably less than 5 microns", still overlaps the claimed

range of 0.1-40 microns, and therefore anticipates the claimed range. Hence, the examiner's position is essentially that the particle size range of about 10 microns or less, or the particle size of less than 5 microns, overlaps the claimed range, and therefore anticipates the claimed range. Answer, pages 7 and 8.

The issue, therefore, is whether Swei's disclosed particle size of  $0 < x \leq$  about 10 microns anticipates a particle size of between about 0.1 microns to about 40 microns. We agree with the examiner that it does anticipate the claimed range. In re Nehrenberg, 280 F.2d 161, 126, 126 USPQ 383 (CCPA 1960). See also Ex parte Lee, (31 USPQ2d 1105, BPAI 1993). We particularly agree with the examiner's statement made on page 9 of the answer, that "Swei discloses the same composition with the particle size of the silica filler being [a, sic] narrower (not "broader" as indicated by appellants) range than that claimed by the Appellants and therefore, anticipates the claimed invention." See In re Gostelli, 872 F.2d 1008, 1010, 10 USPQ2d 1614, 1616 (Fed. Cir. 1989). Appellants have not presented arguments directed to the scope of claim 9.

Appellants have presented arguments directed to the scope of claim 18. We therefore will separately address these arguments, below.

On page 6 of brief, appellants state that the claimed invention places emphasis on the criticality of the features of the shape and size of the silica particles. On pages 7-8 of the brief, appellants refer to parts of the Swei patent, and argue that the teachings found therein fail to anticipate the particle size distribution of appellants' claimed invention. On page 2 of the reply brief, appellants argue that Swei teaches the need to limit the particle size to less than 10 microns and preferably less than 5 microns. Appellants argue that thus it

is clear that Swei cannot have particles with a distribution between about 0.1 and 40 microns as recited in claim 18.

On page 3 of the reply brief, appellants argue that the examiner's conclusion is wrong because the particle sizes of the silica in the present invention, as recited in claim 18, are "distributed" over a range of about 0.1 to about 40 microns. Appellants state that, in other words, the particles sizes of the silica are of non-uniform size and therefore each particle cannot have a "size of about 10 microns" as asserted by the examiner in the first paragraph on page 7 of Answer.

We first note that during patent examination, in determining the patentability of claims, the PTO gives claim language its "broadest reasonable interpretation" consistent with the specification and claims. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997)(citations omitted).

We find that appellants' specification discloses that the silica particles "have sizes of from about 0.1 microns to about 40 microns". See page 11, lines 27-30 of the specification, and also see original claim 14. We cannot find in the specification any detail of how the sizes are distributed, if at all, over the range of from about 0.1 microns to about 40 microns. The specification does not provide details of the particle size diversity. Hence, we interpret the subject matter of claim 18, in light of the specification, as comprising a silica filler material comprising particles having a size of from about 0.1 micron to about 40 microns. We reiterate that the specification does not indicate that the silica filler material is comprised of substantially spherical or spheroidal particles, having particles that are distributed over the entire range of about 0.1 to about 40 microns.

We find that Swei teaches that "all particles . . . exhibit an equivalent diameter of less than about 10 microns". Swei also teaches that "[a]lternatively, it is preferred that all particles of the particulate filler exhibit no single linear dimension greater than about 5  $\mu\text{m}$ ". See column 3, lines 41-46 and lines 54-56. In summary, Swei teaches a particle size of about 10 microns or less ( $0 < x \leq$  about 10 microns), preferably of about 5 microns or less ( $0 < x \leq$  about 5 microns). We note that a prior art disclosure is not limited to its working examples or to its preferred embodiments. Merck & Co. Inc. v. Biocraft Labs. Inc., 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989); In re Fracalossi, 681 F.2d 792, 794 n.1, 215 USPQ 569, 570 n.1 (CCPA 1982); In re Lamberti, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976); In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966). Thus, for the reasons stated above, we agree with the examiner that Swei discloses a composition that anticipates the claimed subject matter.

In view of the above, we affirm anticipation rejection of claims 9, 11-13, 16-19 and 28-38.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(effective September 13, 2004; 69 Fed. Reg. 49960 (August 12, 2004); 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)).

**AFFIRMED**

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
	)	APPEALS AND
JEFFREY T. SMITH	)	INTERFERENCES
Administrative Patent Judge	)	
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BEVERLY A. PAWLIKOWSKI	)	
Administrative Patent Judge	)	

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DRIGGS, LUCAS, BRUBAKER & HOGG CO L.P.A.  
DEPT. IEN  
8522 EAST AVENUE  
MENTOR, OH 44060