

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

Paper No. 40

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SCOTT R. SUMMERFELT, HOWARD R. BERATAN, and BRUCE GNADE

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Appeal No. 2000-0366  
Application No. 08/477,957

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ON BRIEF

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Before LALL, DIXON, and BLANKENSHIP, Administrative Patent Judges.  
LALL, Administrative Patent Judge.

ON REQUEST FOR REHEARING

Appellants request that we reconsider our decision of August 9, 2002 wherein we reversed the rejection of claims 23-42 under 35 U.S.C. § 103 and instituted a new ground of rejection for claim 23 under 37 CFR § 1.196(b). Specifically, Appellants argue

Appeal No. 2000-0366  
Application No. 08/477,957

not show that ordinary artisans consider doped silicon to be an art-recognized equivalent to the claimed 'conductive donor doped perovskite layer', obviousness has not been shown." Furthermore, Appellants advocate (id.) along the same lines that

[a]s discussed above, Miyasaka '917's electrode layer 22 is preferably formed from doped silicon. McSweeney '295 teaches "[i]t is also known to modify strontium titanate used in making grain boundary barrier layer capacitors by doping the ceramic material with lanthanide series rare earths. The lanthanum acts as a donor dopant to render the strontium titanate semiconductive." As the DECISION ON APPEAL does not show that ordinary artisans would understand that McSweeney '295's prior art method of doping strontium titanate would work with Miyasaka '917's silicon layer, obviousness has not been shown.

We disagree with Appellants' position. Appellants have given a narrow construction to the Kaiser, Miyasaka and McSweeney references. Specifically, as we pointed out in our decision (page 7), Miyasaka clearly teaches at column 3, lines 50-53 that "a substrate doped with an impurity may be preferably employed [for the first electrode (22)]." Thus, the teaching of Miyasaka is not restricted to just the doped silicon but is applicable to a

Appeal No. 2000-0366  
Application No. 08/477,957

recited range renders the strontium titanate as semiconductive because the lanthanum acts as a donor dopant. McSweeney also shows (column 1, lines 14-21) that strontium titanate and barium titanate display similar characteristics. Furthermore, both of them are known to be classified as perovskite materials, see Appellants' disclosure at page 1 labeled as background of the invention. Thus, contrary to Appellants' assertions, Kaiser does show a capacitor with two electrodes and a high dielectric constant material in between, both electrodes being conductive materials. Miyasaka explicitly teaches that the first electrode may be preferably employed in the form of a substrate which has been doped with an impurity instead of a metal electrode as in Kaiser. Furthermore, McSweeney teaches that a conductive substrate can be prepared by adding lanthanum dopant as a donor to strontium or barium titanate. Therefore, an artisan, having the teachings of Miyasaka that a substrate with an impurity as a dopant is desirable as an electrode in Kaiser, and that the impurity as a dopant further is taught by McSweeney to yield desirable results of having a conductive

Appeal No. 2000-0366  
Application No. 08/477,957

Regarding the argument (request at page 4) relating to the recited "an electrically conductive buffer layer" or "a thin-film conductive donor doped perovskite layer less than 5  $\mu$ m thick," we note that both of these limitations are indeed in claim 23, and we agree with Appellants that they are not shown by the applied prior art.

Thus, we have carefully considered the arguments raised by Appellants in their request for rehearing, and we find an error in our original decision. We withdraw our § 196(b) rejection based on Kaiser in view of Miyasaka and McSweeney, which was set forth in our decision, and our decision is modified to be solely a reversal of the rejection of claims 23-42 under 35 U.S.C. § 103.

Appeal No. 2000-0366  
Application No. 08/477,957



We have granted Appellants' request for rehearing and modified our decision by removing the rejection under 37 CFR § 1.196(b).

GRANTED

PARSHOTAM S. LALL	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
JOSEPH L. DIXON	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
HOWARD B. BLANKENSHIP	)	
Administrative Patent Judge	)	

PSL/jrg

Appeal No. 2000-0366  
Application No. 08/477,957

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