

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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UMICORE AG & CO. KG

Petitioner

v.

BASF CORPORATION

Patent Owner

Case IPR2015-01121  
U.S. Patent 7,601,662

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PETITIONER'S REPLY BRIEF IN SUPPORT OF ITS PETITION FOR *INTER  
PARTES* REVIEW

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## INTRODUCTION

Petitioner Umicore respectfully submits its reply in support of its Petition for IPR of the '662 patent. BASF has failed to identify any claim limitations missing from the prior art. Instead, it argues that the claims are patentable because a single, specific commercial embodiment purportedly produces better low temperature SCR performance and hydrothermal durability than prior art compositions. Neither property, however, is a claim limitation. Nor are the claims otherwise restricted to just compositions that have these properties. In fact, the patent specification itself establishes that these properties are not possessed by all the claimed compositions. As a result, the prior art, which discloses catalysts overlapping the claimed composition ranges and explains that those catalysts can be used as SCR catalysts to reduce nitrogen oxides, renders the '662 patent's claims obvious and unpatentable.

## ARGUMENT

As set forth in the petition, every claim element is found in the prior art and one of ordinary skill in the art would have been motivated to combine that art with an expectation of success. BASF has failed to meet its burden of establishing the existence of secondary considerations sufficient to overcome this strong prima facie case of obviousness.

According to BASF, the '662 patent's claims are directed to "a copper-exchanged aluminosilicate zeolite with the CHA structure type (*i.e.*, CuCHA)" that purportedly "exhibit[s] excellent NO<sub>x</sub> conversion over a wide temperature range and excellent hydrothermal stability." (BASF Opp. at 9-10.) But, neither "improved hydrothermal stability" nor catalytic activity "over a wide temperature range" is required by the claims. Nonetheless, BASF asserts that these unclaimed "enhanced properties" "must be considered in the evaluation of obviousness." (*Id.* at 13.) BASF then criticizes the prior art for not expressly discussing the unclaimed properties. (*See, e.g., id.* at 27.) And, BASF further argues that the unclaimed properties overcame skepticism, provides evidence of unexpected results, and has allowed BASF's catalyst product to be commercially successful. (*See id.* at 39-45.)

BASF's arguments ignore what the patent actually describes and claims. Again, the "enhanced properties" are not required by the claims. And, both the specification and BASF's expert have made clear that they are not inherent properties of the claimed catalysts. As a result, whether a limited subset of catalysts in the '662 patent possess these unclaimed properties is simply not relevant to the obviousness inquiry.

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