## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

## UMICORE AG & CO. KG,

### Petitioner

Patent No. 9,039,982 Original Issue Date: May 26, 2015 Title: CATALYZED SCR FILTER AND EMISSION TREATMENT SYSTEM

# PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,039,982 PURSUANT TO 35 U.S.C. § 312 and 37 C.F.R. § 42.104

Case No. IPR2016-00613



# TABLE OF CONTENTS

I.	Mandatory Notices (37 C.F.R. § 42.8)				
	A.	Real Party-in-Interest (37 C.F.R. § 42.8(b)(1))1			
	B.	Related Matters (37 C.F.R. § 42.8(b)(2))	1		
	C.	Counsel (37 C.F.R. § 42.8(b)(3))	2		
II.	Paym	ment of Fees (37 C.F.R. § 42.103)			
III.	Requirements for IPR (37 C.F.R. § 42.104)2				
	A.	Grounds for Standing (37 C.F.R. § 42.104(a))	2		
	B.	Identification of Challenge (37 C.F.R. § 42.104(b)(1)-(3)) and Relief Requested (37 C.F.R. § 42.22(a)(1))	3		
	C.	Claim Construction (37 C.F.R. § 42.104 (b)(3))	4		
IV.	The '982 Patent6				
	A.	Overview	6		
	B.	Prosecution History	7		
	C.	Prior Inter Partes Review	8		
V.	How Challenged Claims are Unpatentable (37 C.F.R. § 42.104(b)(4)-(5))				
	A.	Overview of the Prior Art Relied upon in this Petition	8		
		1. Muraki	8		
		2. Taoka	10		
		3. Joy	12		
		4. Speronello	13		
	B.	Ground 1: Claims 22, 23 and 27 are obvious under 35 U.S.C. §103(a) over Muraki in view of Taoka	14		
	C.	Ground 2: Claims 24, 25, and 26 are obvious under 35 U.S. C. §103(a) over Muraki in view of Taoka and further in view of Speronello	26		
	D.	Ground 3: Claims 1-5 and 14-17, and 19 are obvious under 35 U.S.C. §103(a) over Muraki in view of Taoka and in further view of Joy.	33		



	Ε.	Ground 4: Claims 6-13, 18, and 20-21 are obvious under 35	
		U.S.C. §103(a) over Muraki in view of Taoka and in further	
		view of Joy and Speronello.	49
VI.	PURF	PORTED SECONDARY CONSIDERATIONS	58
VII.	CON	CLUSION	60



# LISTING OF EXHIBITS

Exhibit 1001	U.S. Patent 9,039,982 to Patchett et al.
Exhibit 1002	Japanese Patent Application Publication H1-151706 to Muraki et al.
Exhibit 1003	Certified English Translation of JPAP H1-151706 to Muraki, et al. and associated translation Declaration
Exhibit 1004	Koebel et al., "Recent Advances in the Development of Urea- SCR for Automotive Applications," SAE Paper No. 2001-01- 3625
Exhibit 1005	Japanese Patent Application Publication 2002-159859 to Taoka et al.
Exhibit 1006	Certified English Translation of JPAP 2002-159859 to Taoka et al. and associated translation Declaration
Exhibit 1007	U.S. Patent Application Publication 2002/0039550A1 to Schafer-Sindlinger et al.
Exhibit 1008	U.S. Patent 4,849,399 to Joy et al.
Exhibit 1009	Expert Declaration of Magdi Khair, Ph.D
Exhibit 1010	Excerpts from File History of U.S. Patent 9,039,982
Exhibit 1011	U.S. Patent 5,516,497 to Speronello et al.
Exhibit 1012	U.S. Patent 4,961,917 to Byrne
Exhibit 1013	Excerpt from Heck et al., "Catalytic Air Pollution Control: Commercial Technology" (2nd Ed., 2002)



Pursuant to 35 U.S.C. §§ 311-319 and 37 C.F.R. § 42, Petitioner Umicore AG & Co. KG ("Umicore" or "Petitioner") respectfully requests *inter partes* review ("IPR") of claims 1-27 of U.S. 9,039,982 ("the '982 patent"), to Joseph A. Patchett et al., which was filed September 26, 2014 and issued May 26, 2015. According to U.S. Patent and Trademark Office ("USPTO") assignment records, the '982 patent is currently assigned to BASF Corporation ("Patent Owner"). There is a reasonable likelihood that Petitioner will prevail with respect to at least one claim challenged in this Petition.

# I. Mandatory Notices (37 C.F.R. § 42.8)

## A. Real Party-in-Interest (37 C.F.R. § 42.8(b)(1))

Petitioner, Umicore, along with parent Umicore S.A. (also referred to as "Umicore NV") and its wholly owned subsidiaries Umicore USA Inc., Umicore Autocat Canada Corp., and Umicore Autocat USA Inc. are real parties-in-interest.

# B. Related Matters (37 C.F.R. § 42.8(b)(2))

The '982 patent issued from U.S Application 14/497,454, which is a continuation of U.S. Application 13/274,635 (now U.S. Patent 8,899,023), which is a continuation of U.S. Application 11/676,798 (now U.S. Patent 9,032,709), which is a divisional of U.S. Application 10/634,659 (now U.S. Patent 7,229,597).

The '597 patent, and U.S. Patent 7,902,107 from the same family, are each the subject of inter partes reexamination proceedings in the United States in Case Nos. 95/001,745 and 95/001,744, respectively.



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