

Supplementary Information

SI1: Characterization of MENM in original papers cited. Orange indicates that no information is given on coating or dispersant while otherwise the characterisation is sufficient.

	Origin	Chemistry	Shape/size				Surface	Controls				
Article	Producer, synthesis	Core material	nominal	DLS	UV-vis	X- ray filtration/ centrifig.	REM, TEM	Coating / dispersant	Zero	Salt	Bulk	Dispersant
Allard et al. 2013	1	1				X- ray			1			
Amorim et al. 2012	1	1	1	1			1	powder	1	1		
Arora et al. 2012	1	1			1		1		1			
Cañas et al. 2011	1	1	1	1			1		1	1		
Chen et al. 2015	1	1					1	1		1	1	
Cherchi & Gu 2010	1	1	1	1				powder	1			
Choi & Hu 2008	1	1			1		1	1	1	1		
Coleman et al. 2010	1	1	1	1			1	powder	1		1	
Colman et al. 2013	1	1					1	1	1	1		
Cornelis et al. 2012	1	1	1	1		1	1	1	NA	NA	NA	NA
Coutris et al. 2012	1	1					1	1		1		
De la Torre-Roche et al. 2015	1	1				1	1				1	
Dimkpa et al. 2014	1	1	1					surface charge	1	1		
Dimkpa et al. 2015	1	1	1				1	surface charge	1			
Echavarri-Bravo 2015	1	1					1		1			1
Fajardo et al. 2015	1						1	1	1			
Fan et al. 2014	1	1	1						1			
Feng et al. 2013	1	1					1	1	1		1	
Garcia et al. 2012	1	1		1			1	1	1			
Golobic et al. 2012	1	1					1	1	1	1		
Gomes et al. 2013	1	1	1	1			1	1	1	1		
Hawthorne et al. 2014	1	1			1					1		
He et al. 2011	1	1					1		1	1		
Heckmann et al.	1	1	1	1			1	1	1	1	1	

Year	Author	Sample Type	Test Type	Test Condition	Test Parameter	Test Result	Test Design	Test Conclusion	Test Summary
2011	Hu et al. 2010	1	1			1		1	
2014	Huang et al. 2014	1	1			1		1	
2013	Jacob et al. 2013	1	1	1				1	1
2011	Judy et al. 2011	1	1	1	1	1	1	1	
2012	Judy et al. 2012	1	1	1		1	1	1	
2015	Judy et al. 2015	1	1		1		1	1	1
2011	Kool et al. 2011	1	1			1	1	1	1
2011	Lapied et al. 2011	1	1	1			1	1	
2014	Larue et al. 2014	1	1		1		1	1	1
2011	Manzo et al. 2011	1	1	1			powder	1	1
2012	McShane et al. 2012	1	1	1		1	1	1	
2015	Novo et al. 2015	1	1			1	1	1	1
2010	Pipan-Tkalec et al. 2010	1	1	1		1	1	1	1
2009	Priester et al. 2009	1	1			1	1	1	1
2012	Priester et al. 2012	1	1	1			powder	1	
2015	Ratnasekhar et al. 2015	1	1		1			1	1
2015	Reyes et al. 2015	1	1		1				1
2010	Roh et al. 2010	1	1			1		1	
2012	Rousk et al. 2012	1	1	1				1	1
2014	Saccà et al. 2014	1	1	1			1	1	
2013	Schlisch et al. 2013	1	1	1		1	1	1	1
2011	Shoultz-Wilson et al. 2011	1	1	1	1		1	1	
2015	Tourinho et al. 2015	1	1		1		1	1	
2015	Tourinho et al. 2015	1	1			1		Not applicable to test design	
2016	Tourinho et al. 2016	1	1		1		1	1	
2012	Unrine et al. 2012	1	1		1	1	1	1	
2014	van der Ploeg et al. 2014	1	1	1			1	1	1
2014	Waalewijn-Kool et al. 2014	1	1	1	1		1	1	
2009	Wang et al. 2009	1	1	1				1	1
2011	Werlin et al. 2011	1	1	1			1	1	
2009	Whiteside et al. 2009	1	1	1			1		
2015	Xu et al. 2015	1	1	1	1		not clear	1	
2012	Yang et al. 2012	1	1		1		1	1	

Yasur et al. 2015	1	1		1			1	1		1		
Yeo & Nam 2013	1	1	1	1			1	1		1		
Yin et al. 2012	1	1	1				1	1		1	1	
Zheng et al. 2011	1	1	1	1			1			1		
Zheng et al. 2012	1	1		1			1			1		