Electronic Supplementary Material (ESI) for Environmental Science: Nano.

Supporting information

"Multivariate Analysis of the Exposure and Hazard of Ceria Nanomaterials in Indoor Aquatic Mesocosms"

Nassar Mohammad[a], Auffan Mélanie[a, b*], Santaella Catherine[c], Masion Armand[a], Rose Jérôme[a, b]

[a.] *CEREGE, CNRS, Aix Marseille Univ, IRD, INRAE, Coll France, Aix-en-Provence, France.*
[b.] *Duke university, Civil and Environmental Engineering, Durham, USA*
[c.] *Aix Marseille Univ, CEA, CNRS, BIAM, LEMiRE, Saint Paul-Lez-Durance, F-13108, France*Corresponding author: auffan@cerege.fr*

Table S1: table showing the correlation of each variable to the principle components F1, F2, F3.

	F1	F2	F3
pH	-0.302	-0.483	-0.422
Temp	0.896	0.252	-0.125
[O2] diss	-0.434	-0.279	0.419
[TOC]	-0.683	0.501	-0.055
W red	0.476	0.171	0.573
S red	0.697	0.423	0.273
Cond	-0.298	-0.100	0.465
pPk W	-0.605	0.667	-0.095
[Ce] tot W	-0.727	0.552	0.102
[Ce] tot S	-0.517	-0.536	0.348
TBARS	-0.864	0.036	-0.035
TAOC	0.803	0.003	-0.037

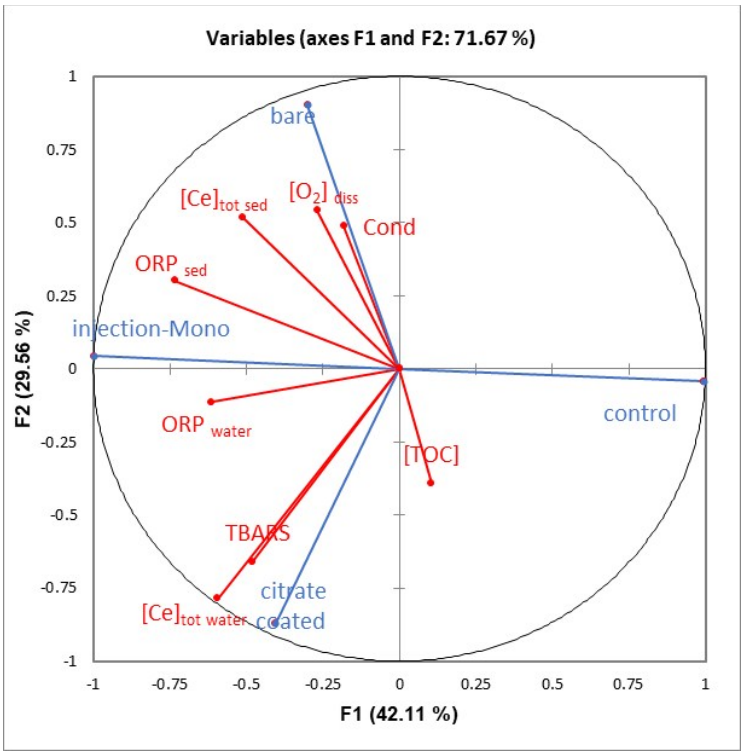

Figure S1: Circle of correlation given by PCR and gathering 8 quantitative variables in red and 2 qualitative variables in blue. The two first principal axis F1 and F2 explained 42.11% and 29.56% of the variability, respectively. This analysis takes into consideration the mono injection scenario at day 7 only.

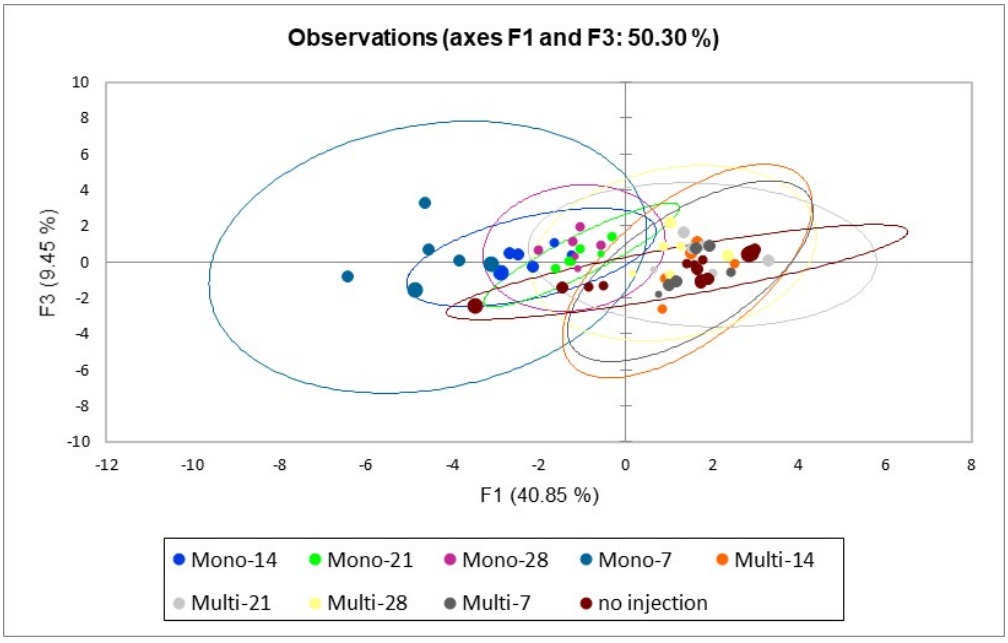

Figure S2: Loading plots showing the behaviour of mesocosms i.e. ecosystems. Each point corresponds to a mesocosm at a given time point and exposure scenario. The analysis takes into consideration the components F1 and F3 that explain 50.30% of variabilities.

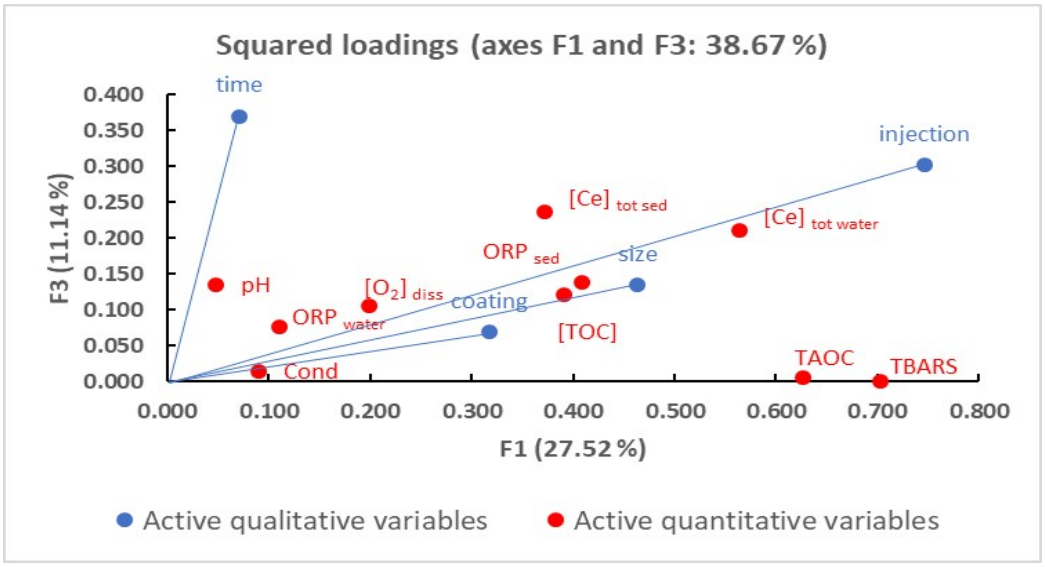

Figure S3: Squared loadings plot showing the impact of each qualitative variable (in blue) and quantitative variable (in red) on the principal components F1 and F3.

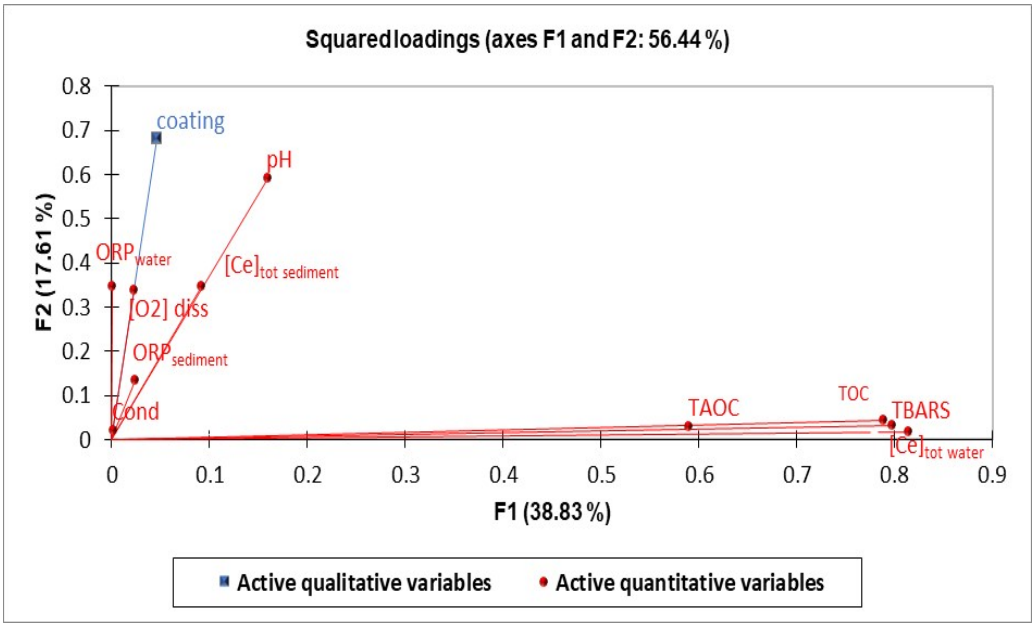

Figure S4: Squared loadings figure showing the contribution of each variable to the formation of F1 and F2. This analysis takes into consideration the mono injection scenario only.