

Materials List for:

Experimental Column Setup for Studying Anaerobic Biogeochemical Interactions Between Iron (Oxy)Hydroxides, Trace Elements, and Bacteria

Jennifer Hellal¹, André Burnol², Aude Locatelli^{1,3}, Fabienne Battaglia-Brunet¹

Correspondence to: Jennifer Hellal at j.hellal@brgm.fr

URL: https://www.jove.com/video/56240

DOI: doi:10.3791/56240

Materials

Name	Company	Catalog Number	Comments
Glass columns	Beaucaverre, France	Specific request	columns were composed of 3 separate pieces, the main column core with the cooling jacket and the 5 sampling ports (size GL14 with olive) and a top and bottom piece that fits to the main column body and is held in place with a silicone joint and screw (RIN F 40x38 & SVL 42). note: this design was discussed directly with the company. We recommend to find a local glazier.
Septa PTFE/silicone diameter 20 mm	Sigma-Aldrich	508608	
PTFE tubing ID 3 mm	VWR	228-0745	
Peristaltic pump	Dominique Dutsher SAS	66493	
Peristaltic pump tubing LMT 55	VWR	224-2250	Tygon® LMT 55
Fontainbleau sand D50=209 µm	SIBELCO, France		
N ₂ for bubbling	Air Liquide, France		
Gamma irradiation	Ionisos, Dagneux, France		
Automatic Mercury Analyzer (AMA 254)	Courtage Analyses, France		
Varian SpectrAA 300 Zeeman	Agilent		
Name	Company	Catalog Number	Comments
Chemicals			
HNO₃ Supra pur	VWR	1.00441.1000	Manufacturer: Merck
HCL 30% Supra pur	VWR	1.00318.1000	Manufacturer: Merck
Hg(NO ₃) ₂	Merck	516953	
As ₂ O ₃	Merck	202673	
FeCl ₃ -6H2O	Merck	207926	
silica gel	Sigma-Aldrich	336815-500G	

¹Environmental Biogeochemistry and Water Quality Unit, BRGM

 $^{^2\}mbox{Risks}$ and Risk Prevention Division, BRGM

³Egg Safety & Quality Research